ORDER NO. AD9211383C8

Service Manual

Cassette Deck ᗡᗞ* DOLBY B·C NR HX PRO

Cassette Deck

RS-CH750

Colour

(K)	Black Type

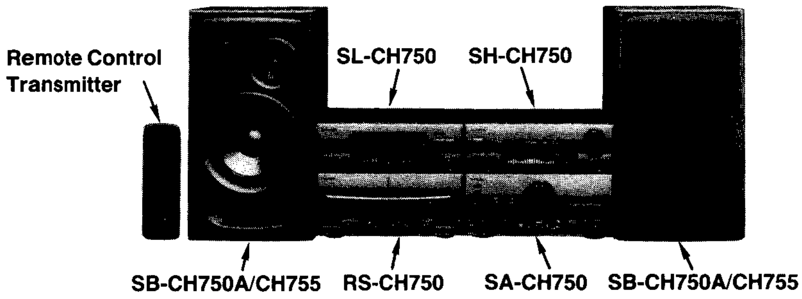
Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

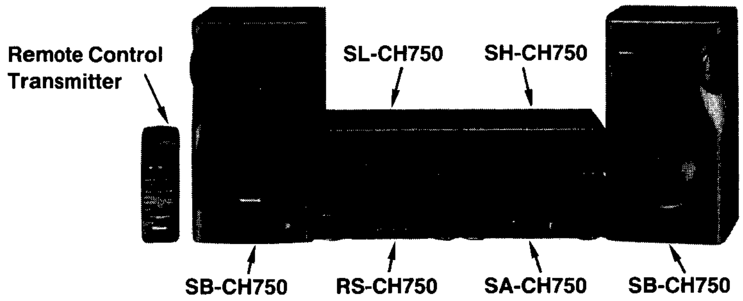
System: SC-CH750

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

- **For (E), (EB), (EG) areas**



- **For (GC), (GN) areas**



■ RS-TR165 MECHANISM SERIES (AR300)

SPECIFICATIONS

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Recording system	AC bias
Erasing system	AC erase
Tape speed	4.8 cm/sec. (1⅞ ips)
Bias frequency	80 kHz
Heads	
DECK 1 (playback)	Permalloy head
DECK 2 (record/playback)	Permalloy head
(erasure)	Double gap ferrite head
Motors	DC servo motor
Wow and flutter	0.1% (WRMS)
Fast forward and rewind time	Approx. 110 seconds with C-60 cassette tape
Frequency response (When Dolby NR OFF, CCRT ON)	
NORMAL	20 Hz–17 kHz 30 Hz–15 kHz (DIN)
CrO_2	20 Hz–18 kHz 30 Hz–17 kHz (DIN)
METAL	20 Hz–20 kHz 30 Hz–19 kHz (DIN)

S/N (CrO_2 type tape)	
Dolby NR off	56 dB (A-WTD)
Dolby B NR on	66 dB (CCIR)
Dolby C NR on	74 dB (CCIR)

■ General

Dimensions (W×H×D)	270×119×262 mm
Weight	3.3 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions shown are approximate.

***Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.**
"DOLBY", the double-D symbol ᗡᗞ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH750	SH-CH750	SA-CH750	SL-CH750	RS-CH750	*SB-CH750A .... (E), (EB), (EG) areas *SB-CH755 .... Switzerland only SB-CH750 .... (GC), (GN) areas

***Made in PAES**

Technics

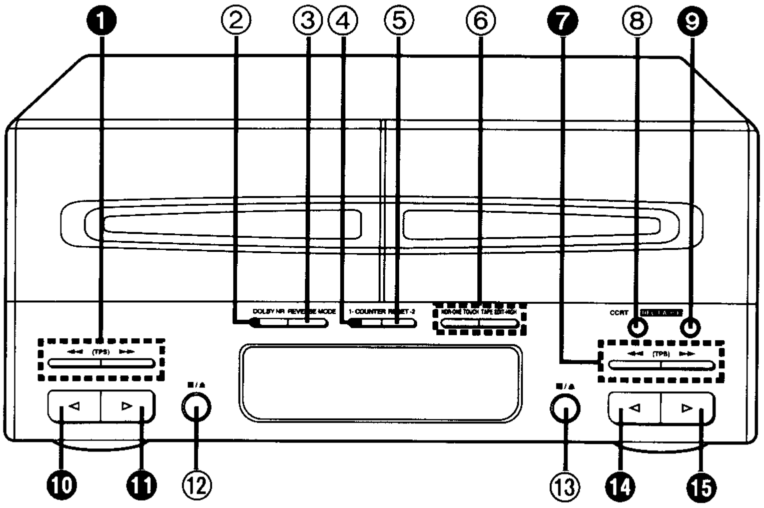
■ CONTENTS

Page
- •LOCATION OF CONTROLS 2, 3
- •DISASSEMBLY INSTRUCTIONS ....3~9
- •MEASUREMENTS AND ADJUSTMENTS .... 10~12
- •SCHEMATIC DIAGRAM .... 13~19
- •PRINTED CIRCUIT BOARD DIAGRAM................ 20~22
- •WIRING CONNECTION DIAGRAM 23

Page
- •BLOCK DIAGRAM.................................... 24, 25
- •FUNCTION OF IC TERMINALS 26, 27
- •REPLACEMENT PARTS LIST .... 28~31, 34, 35
- •CABINET PARTS LOCATION.......................... 32, 33
- •MECHANISM PARTS LOCATION .... 36~39

NOTE:
Refer to the service manual for Model No. SA-CH750 (Order No. AD9211379C8) for information on "ACCESSORIES", "STACKING THE COMPONENTS", "CONNECTIONS" and "PACKAGING".

■ LOCATION OF CONTROLS



The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.

❶ **Deck 1 fast-forward/rewind/tape program sensor (TPS) buttons [◀◀ (TPS) ▶▶]**
Press to advance or rewind the tape, or to quickly search for the beginning of a program while the tape is being played.

② **Dolby noise reduction button (DOLBY NR)**
Press to reduce hissing noise on the tape. This system has both the Dolby B-type and Dolby C-type noise reduction.

③ **Reverse mode select button and indicators (REVERSE MODE)**
Press to select the reverse mode (for playback and recording).

④ **Deck 1 counter reset button (COUNTER RESET 1)**
Press to reset the tape counter indicator to "0000".

⑤ **Deck 2 counter reset button (COUNTER RESET 2)**

⑥ **One-touch tape edit buttons (NOR, HIGH)**
Press to start the tape-to-tape recording.

❼ **Deck 2 fast-forward/rewind/tape program sensor (TPS) buttons [◀◀ (TPS) ▶▶]**

⑧ **CCRT (computer control record tuning) button (CCRT)**
Press to adjust the recording level, equalizer and bias before recording.

❾ **Record pause button (REC PAUSE)**
Press to put deck 2 into the record standby mode.

❿ **Deck 1 reverse-side playback button (◁)**
Press to start the playback in the reverse direction.

⓫ **Deck 1 forward-side playback button (▷)**
Press to start the playback in the forward direction.

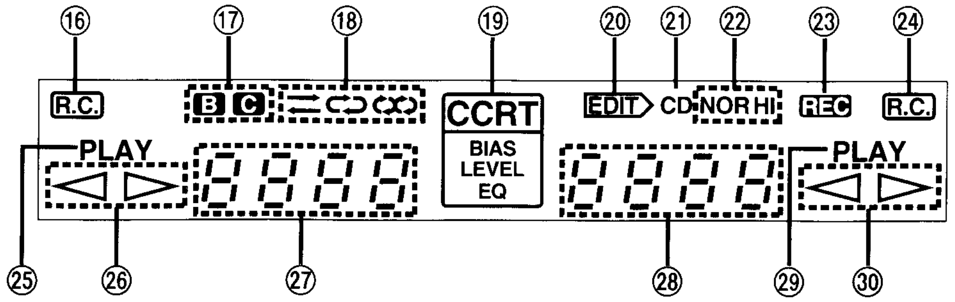
⑫ **Deck 1 stop/cassette holder open button (■/▲)**
Press to stop the tape or open the cassette holder.

⑬ **Deck 2 stop/cassette holder open button (■/▲)**

⓮ **Deck 2 reverse-side playback button (◁)**
Press to start the playback or recording in the forward direction.

⓯ **Deck 2 forward-side playback button (▷)**
Press to start the playback or recording in the reverse direction.

●Display Section


⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
R.C.
B C
CCRT
BIAS
LEVEL
EQ
EDIT
CD
NOR HI
REC
R.C.
PLAY
PLAY
㉕
㉖
㉗
㉘
㉙
㉚

⑯ **Deck 1 remote indicator (R.C.)**
Lights to show that you can operate deck 1 with remote control.

⑰ **Dolby noise reduction indicators (B , C)**
Lights to show the type of Dolby noise reduction you select.

⑱ **Reverse mode indicators (⇄, ⊂⊃, ∞)**
Lights to show the reverse mode you select.

⑲ **CCRT indicator (CCRT, BIAS, LEVEL, EQ)**
Lights when CCRT function is activated.

⑳ **Edit indicator (EDIT▷)**
Lights when you are editing CD or making a tape-to-tape recording.

㉑ **CD indicator (CD)**
Lights together with the edit indicator when you are editing CD.

㉒ **Tape edit indicators (NOR, HI)**
Lights together with the edit indicator when you are making a tape-to-tape recording.

㉓ **Recording indicator (REC)**
Lights when in the recording or recording standby mode.

㉔ **Deck 2 remote indicator (R.C.)**
Lights to show that you can operate deck 2 with remote control.

㉕ **Deck 1 play indicator (PLAY)**
Lights when you play the cassette tape.
Flashes when you quickly search for the beginning of a program while the tape is being played (TPS).

㉖ **Deck 1 tape travel direction indicator (◁, ▷)**
Lights to show the direction of the tape travel.

㉗ **Deck 1 tape counter**
Show the amount of tape movement.

㉘ **Deck 2 tape counter**

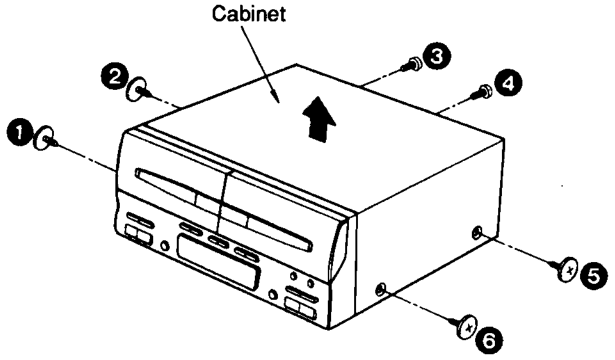
㉙ **Deck 2 play indicator (PLAY)**
Lights when you play or record the cassette tape.
Flashes when you quickly search for the beginning of a program while the tape is being played (TPS), or while in the recording standby mode.

㉚ **Deck 2 tape travel direction indicator (◁, ▷)**

■ DISASSEMBLY INSTRUCTIONS

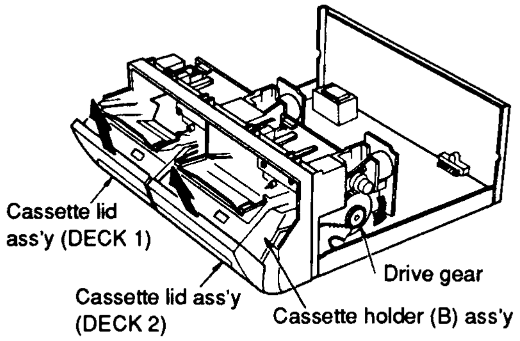
"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the Cabinet
Procedure 1	


Cabinet
❶
❷
❸
❹
❺
❻

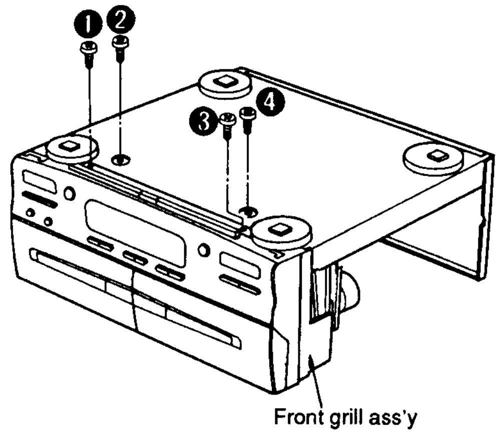
1. Remove the 6 screws (❶~❻).
2. Remove the cabinet in the direction of arrow.

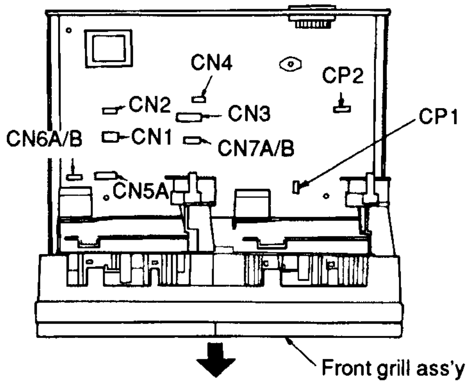
Ref. No. 2	Removal of the Cassette Lid Ass'y (DECK 1 and DECK 2)
Procedure 1→2	


Cassette lid ass'y (DECK 1)
Cassette lid ass'y (DECK 2)
Drive gear
Cassette holder (B) ass'y

1. Turn the drive gear in the direction of arrow, and open the cassette holder (B) ass'y.
2. Remove the cassette lid ass'y in the direction of arrow.

Ref. No. 3	Removal of the Front Grill Ass'y
Procedure 1→3	

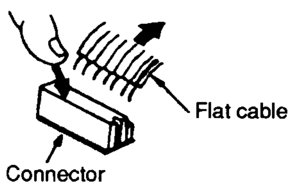

❶
❷
❸
❹
Front grill ass'y


CN4
CP2
CN2
CN3
CP1
CN6A/B
CN1
CN7A/B
CN5A
Front grill ass'y

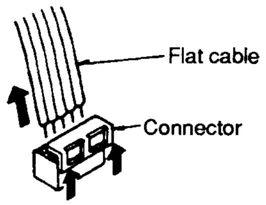
1. Remove the 4 screws (❶~❹).
2. Remove the 2 connectors (CP1, CP2).
3. Remove the 6 flat cables (CN1, CN2, CN3, CN4, CN6A/B, CN7A/B).
4. Remove the FPC P.C.B. (CN5A).
5. Remove the front grill ass'y in the direction of arrow.

■ Removal of the Flat cable and F.P.C.

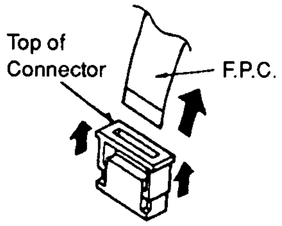
- Push the top of the connector and then pull out the flat cable.
(CN1, CN3)


Flat cable
Connector

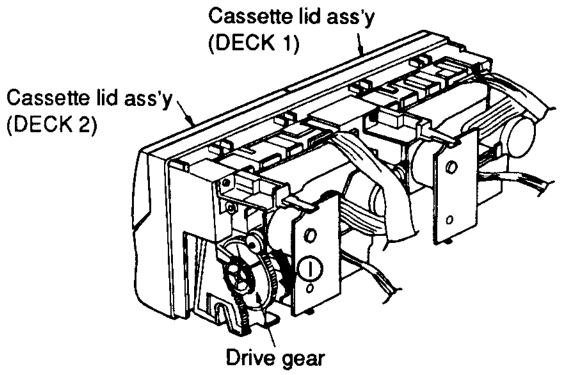
1. Lift up the connector.
2. Pull out the flat cable.
(CN2, CN4, CN6A/B, CN7A/B)

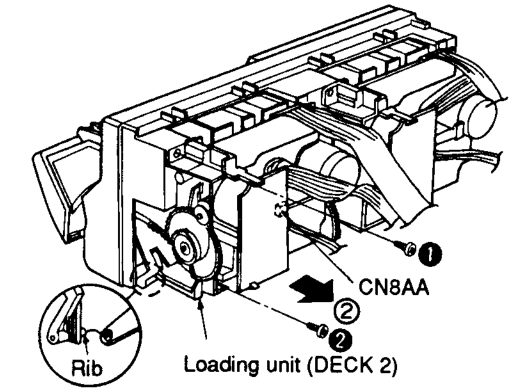

Flat cable
Connector

- Lift up the top of the connector and pull out the F.P.C..


Top of Connector
F.P.C.

Ref. No. 4	Removal of the Loading Unit (DECK 1 and DECK 2)
Procedure 1→3→4	(＊ This removal procedure describes for DECK 2. For DECK 1, perform the same procedure.)


Cassette lid ass'y (DECK 1)
Cassette lid ass'y (DECK 2)
①
Drive gear


❶
CN8AA
②
❷
Rib
Loading unit (DECK 2)

1. Turn the drive gear in the direction of arrow ①, and then open the cassette lid ass'y.
2. Remove the connector (CN8AA).
3. Remove the 2 screws (❶, ❷).
4. Release the loading unit from the rib, and then remove it in the direction of arrow ②.

k 2 with remote

ginning of a pro-

ator (◁, ▷)

l.

tape.

ginning of a pro-

, or while in the

ator (◁, ▷)

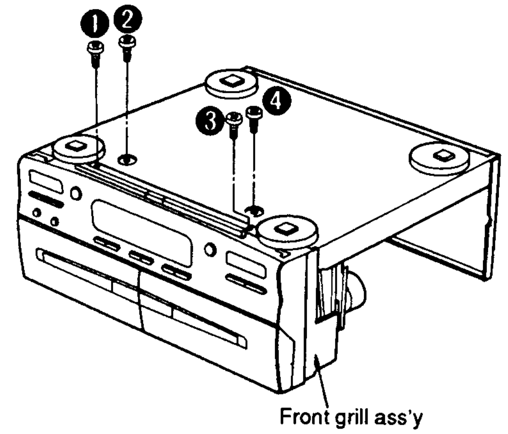
te Lid Ass'y

ss'y

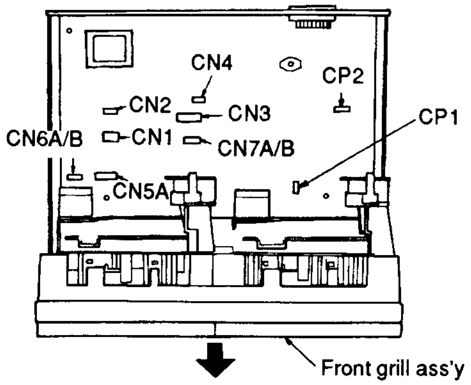
open the

arrow.

Ref. No. 3	Removal of the Front Grill Ass'y
Procedure 1→3	


❶❷
❸❹
Front grill ass'y

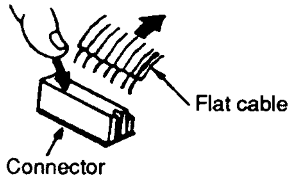
1. Remove the 4 screws (❶~❹).


CN4
CP2
CN2
CN3
CP1
CN6A/B
CN1
CN7A/B
CN5A
Front grill ass'y

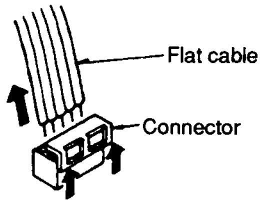
2. Remove the 2 connectors (CP1, CP2).
3. Remove the 6 flat cables (CN1, CN2, CN3, CN4, CN6A/B, CN7A/B).
4. Remove the FPC P.C.B. (CN5A).
5. Remove the front grill ass'y in the direction of arrow.

■ Removal of the Flat cable and F.P.C.

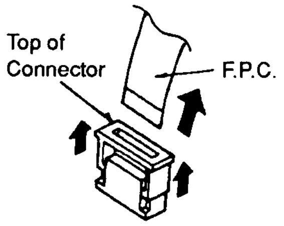
- Push the top of the connector and then pull out the flat cable. (CN1, CN3)


Flat cable
Connector

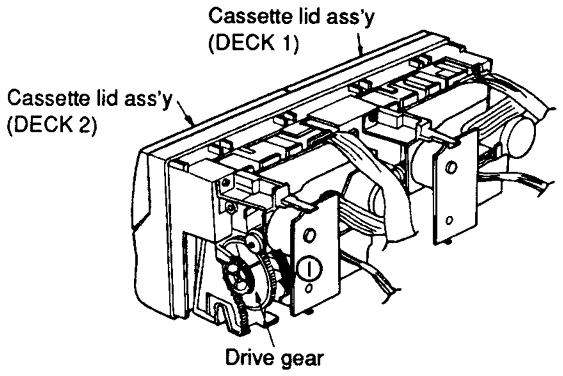
1. Lift up the connector.
2. Pull out the flat cable. (CN2, CN4, CN6A/B, CN7A/B)


Flat cable
Connector

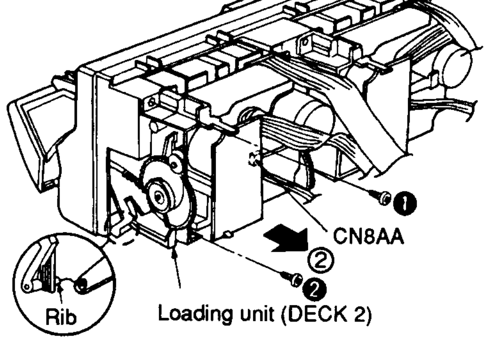
- Lift up the top of the connector and pull out the F.P.C..


Top of Connector
F.P.C.

Ref. No. 4	Removal of the Loading Unit (DECK 1 and DECK 2)
Procedure 1→3→4	(* This removal procedure describes for DECK 2. For DECK 1, perform the same procedure.)

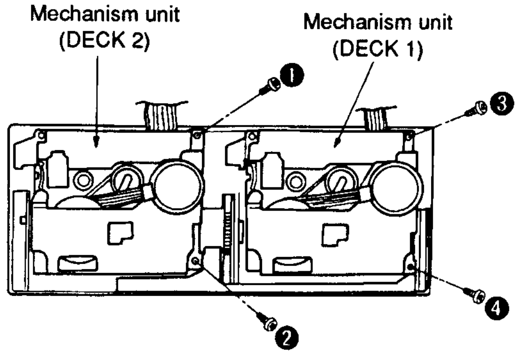

Cassette lid ass'y (DECK 1)
Cassette lid ass'y (DECK 2)
①
Drive gear

1. Turn the drive gear in the direction of arrow ①, and then open the cassette lid ass'y.


❶
CN8AA
②
❷
Rib
Loading unit (DECK 2)

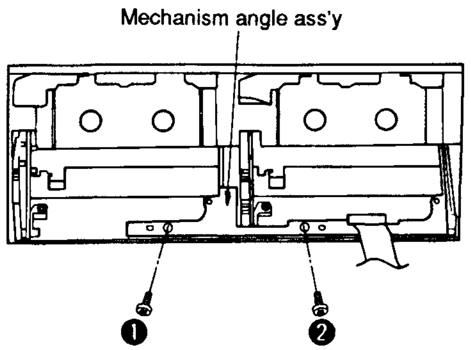
2. Remove the connector (CN8AA).
3. Remove the 2 screws (❶, ❷).
4. Release the loading unit from the rib, and then remove it in the direction of arrow ②.

Ref. No. 5	Removal of the mechanism Unit (DECK 1 and DECK 2)
Procedure 1→3→4→5	


Mechanism unit (DECK 2)
Mechanism unit (DECK 1)
❶
❷
❸
❹

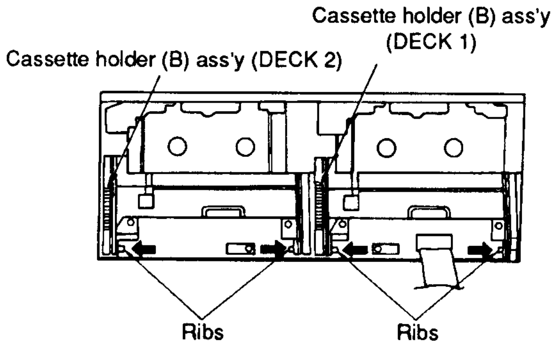
- Remove the 4 screws (❶~❹).

Ref. No. 6	Removal of the Mechanism Angle Ass'y
Procedure 1→3→4→5→6	


Mechanism angle ass'y
❶
❷

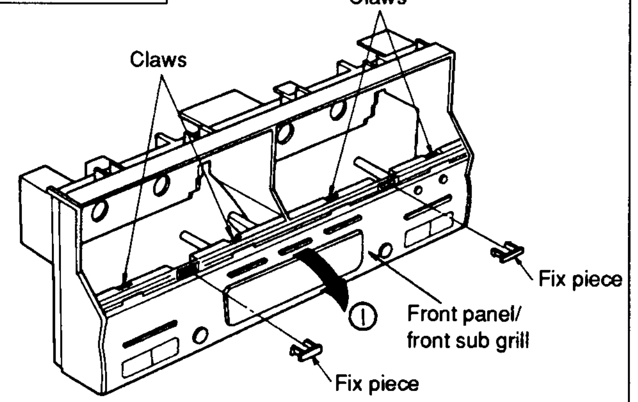
- Remove the 2 screws (❶, ❷).

Ref. No. 7	Removal of the Cassette Holder (B) Ass'y (DECK 1 and DECK 2)
Procedure 1→3→4→5→6→7	

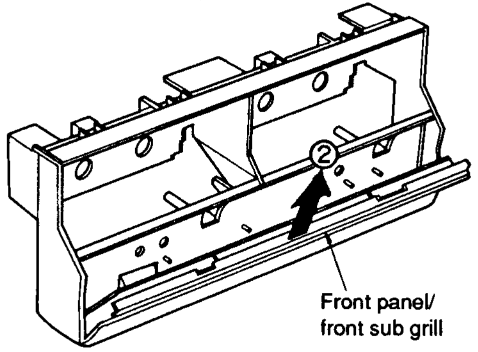

Cassette holder (B) ass'y (DECK 1)
Cassette holder (B) ass'y (DECK 2)
Ribs
Ribs

- Release the ribs of the cassette holder (B) ass'y in the direction of arrow.

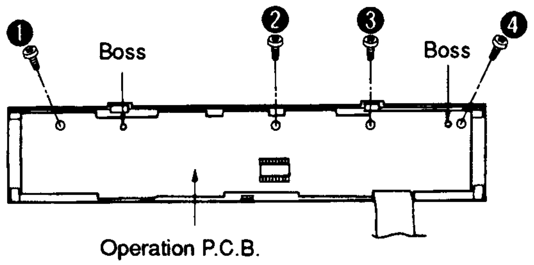
Ref. No. 8	Removal of the Operation P.C.B.
Procedure 1→3→4→5→6→7→8	


Claws
Claws
Fix piece
①
Front panel/ front sub grill
Fix piece

1. Remove the 2 fix pieces.
2. Release the 4 claws, and then open the front panel/front sub grill in the direction of arrow ①.


②
Front panel/ front sub grill

3. Remove the front panel/front sub grill in the direction of arrow ②.

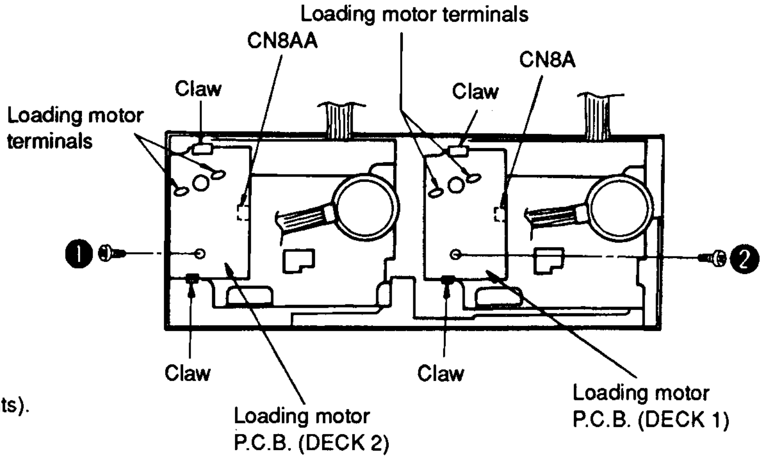

❶
Boss
❷
❸
Boss
❹
Operation P.C.B.

4. Remove the 4 screws (❶~❹).
5. Release the 2 bosses.

Ref. No.
9

Removal of the Loading Motor P.C.B. (DECK 1 and DECK 2)

Procedure
1→3→9

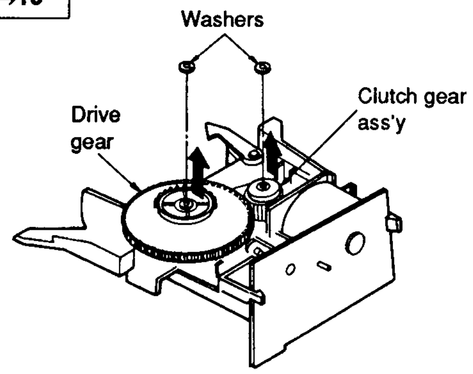

Loading motor terminals
CN8AA
CN8A
Claw
Claw
Loading motor
terminals
❶
❷
Claw
Claw
Loading motor
P.C.B. (DECK 2)
Loading motor
P.C.B. (DECK 1)

1. Unsolder the loading motor terminals (4 points).
2. Remove the 2 connectors (CN8A/CN8AA).
3. Remove the 2 screws (❶, ❷).
4. Release the 4 claws.

Ref. No.
10

Removal of the Drive Gear and Clutch Gear Ass'y (DECK 1 and DECK 2)

Procedure
1→3→4→10

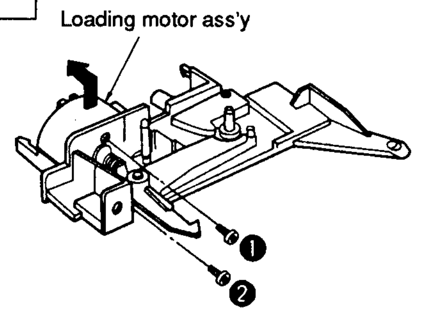

Washers
Drive
gear
Clutch gear
ass'y

1. Remove the 2 washers.
2. Remove the drive gear and the clutch gear ass'y in the direction of arrow.

Ref. No.
11

Removal of the Loading Motor Ass'y (DECK 1 and DECK 2)

Procedure
1→3→4→9
→10→11

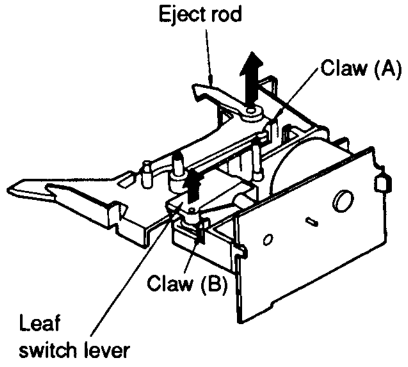

Loading motor ass'y
❶
❷

1. Remove the 2 screws (❶, ❷).
2. Remove the loading motor ass'y in the direction of arrow.

Ref. No.
12

Removal of the Eject Rod and Leaf Switch Lever (DECK 1 and DECK 2)

Procedure
1→3→4→10
→12


Eject rod
Claw (A)
Claw (B)
Leaf
switch lever

■ Removal of the Eject Rod

- Release the claw (A), and remove the eject rod in the direction of arrow.

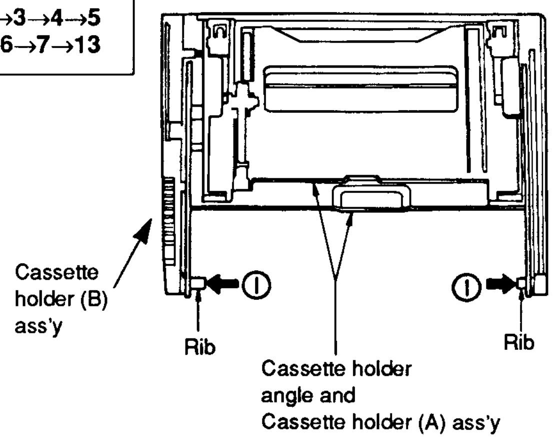
■ Removal of the Leaf Switch Lever

- Release the claw (B), and remove the leaf switch lever in the direction of arrow.

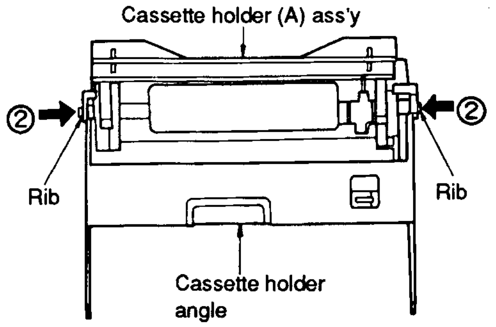
Ref. No.
13

Removal of the Cassette Holder Angle and Cassette Holder (A)/(B) Ass'y (DECK 1 and DECK 2)

Procedure
1→3→4→5
→6→7→13


Cassette
holder (B)
ass'y
①
①
Rib
Rib
Cassette holder
angle and
Cassette holder (A) ass'y

1. Release the 2 ribs of cassette holder (B) ass'y in the direction of arrow ①.

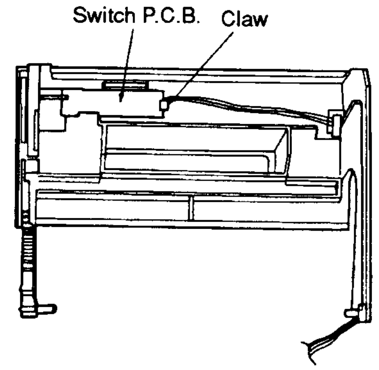

Cassette holder (A) ass'y
②
②
Rib
Rib
Cassette holder
angle

2. Release the 2 ribs of cassette holder (A) ass'y in the direction of arrow ②.

Ref. No.
14

Removal of the Switch P.C.B. (DECK 1 and DECK 2)

Procedure
1→3→4→5
→6→7→13→14

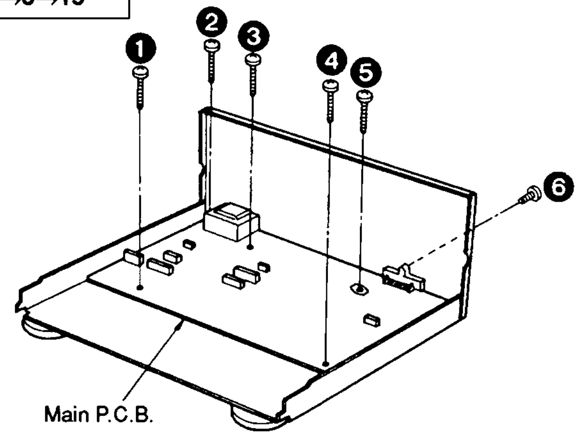

Switch P.C.B.
Claw

- Release the claw.

Ref. No.
15

Removal of the Main P.C.B.

Procedure
1→3→15

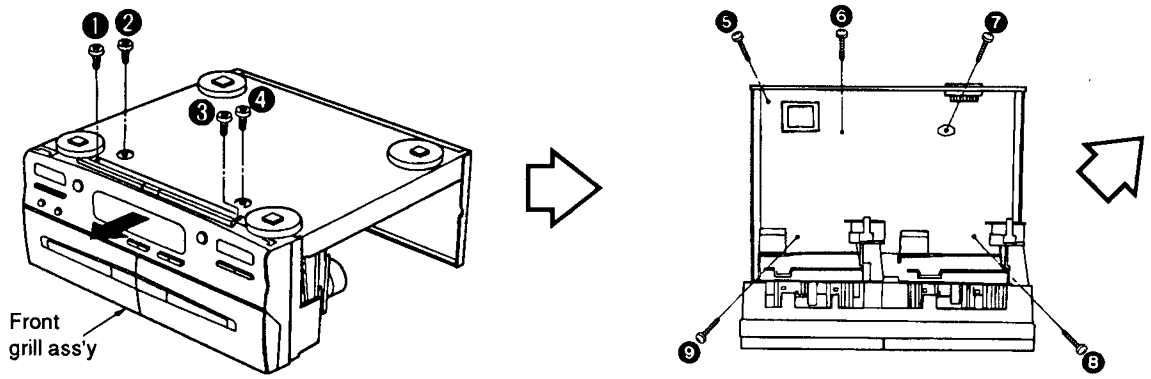

❶
❷
❸
❹
❺
❻
Main P.C.B.

- Remove the 6 screws (❶~❻).

Ref. No.
16

How to check the Main P.C.B.

Procedure
1→16

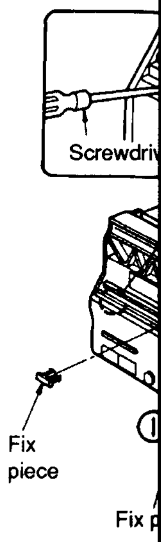

❶
❷
❸
❹
Front
grill ass'y
❺
❻
❼
❽
❾

1. Remove the 4 screws (❶~❹).
2. Remove the front grill ass'y in the direction of arrow.
3. Remove the 5 screws (❺~❾).

4. Remove the 2

Ref. No.
17

Procedure
1→2→17


Screwdri
Fix
piece
Fix p

1. Remove the 2
2. Release the 4
front panel/fro

❷

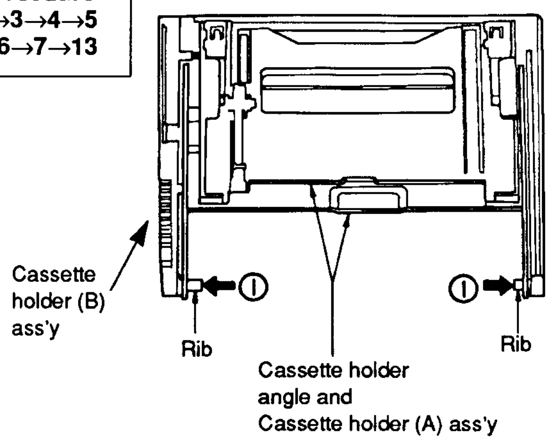
lotor
2)

row.

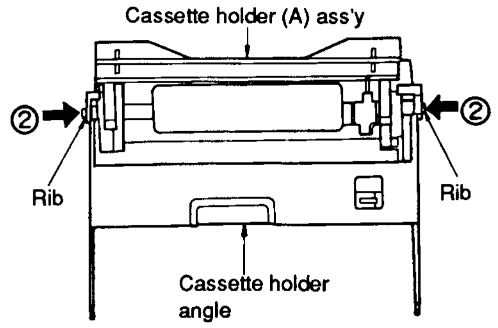
Ref. No. 13

Removal of the Cassette Holder Angle and Cassette Holder (A)/(B) Ass'y (DECK 1 and DECK 2)

Procedure
1→3→4→5→6→7→13


Cassette holder (B) ass'y
Rib
①
①
Rib
Cassette holder angle and Cassette holder (A) ass'y

1. Release the 2 ribs of cassette holder (B) ass'y in the direction of arrow ①.

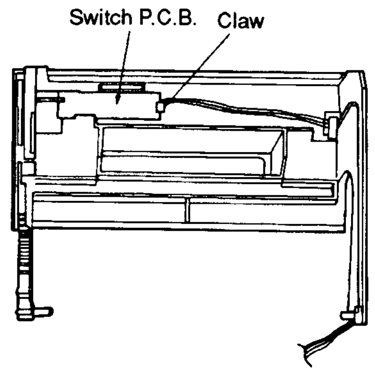

Cassette holder (A) ass'y
②
②
Rib
Rib
Cassette holder angle

2. Release the 2 ribs of cassette holder (A) ass'y in the direction of arrow ②.

Ref. No. 14

Removal of the Switch P.C.B. (DECK 1 and DECK 2)

Procedure
1→3→4→5→6→7→13→14

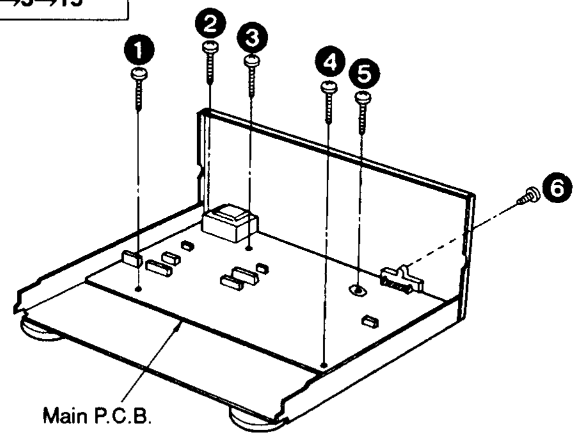

Switch P.C.B.
Claw

- Release the claw.

Ref. No. 15

Removal of the Main P.C.B.

Procedure
1→3→15

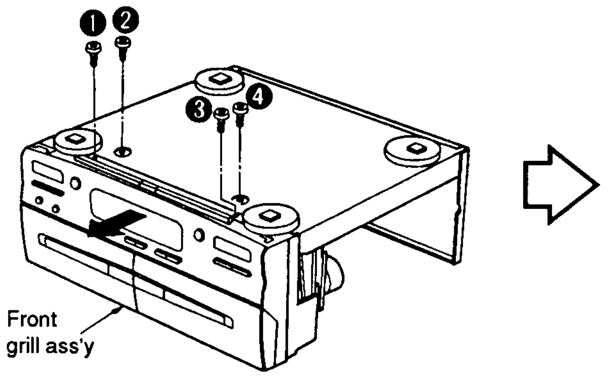

❶
❷
❸
❹
❺
❻
Main P.C.B.

- Remove the 6 screws (❶~❻).

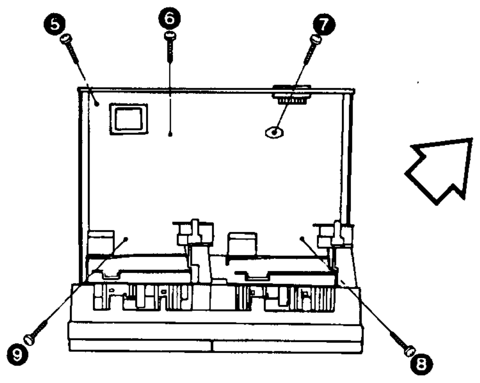
Ref. No. 16

How to check the Main P.C.B.

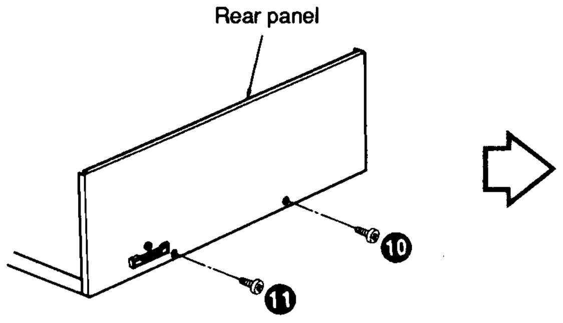
Procedure
1→16


❶
❷
❸
❹
Front grill ass'y

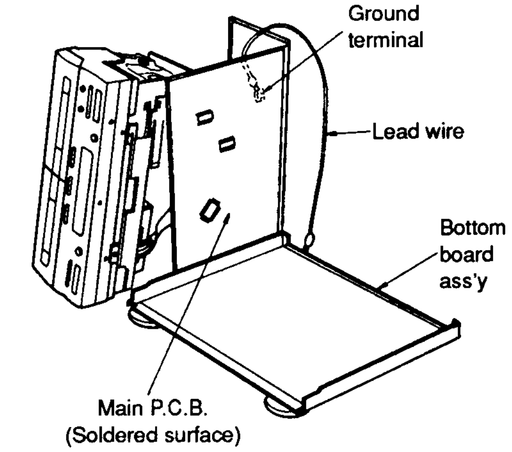
1. Remove the 4 screws (❶~❹).
2. Remove the front grill ass'y in the direction of arrow.



3. Remove the 5 screws (❺~❾).


Rear panel
❿
⓫

4. Remove the 2 screws (❿, ⓫).

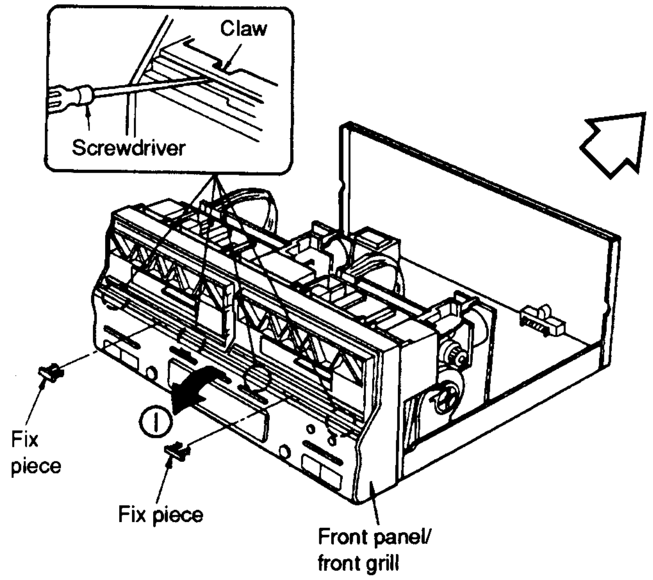

Ground terminal
Lead wire
Bottom board ass'y
Main P.C.B. (Soldered surface)

5. When checking the soldered surfaces of main P.C.B., perform as shown above.

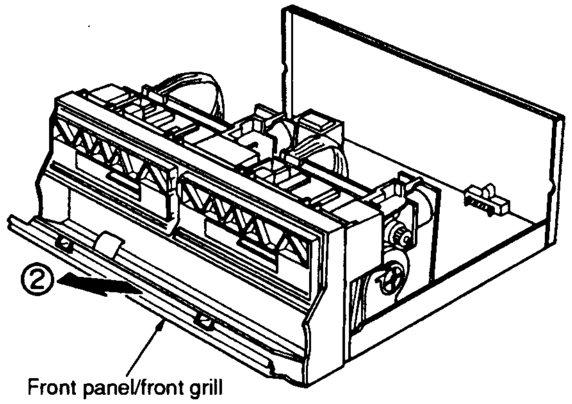
Ref. No. 17

How to check the Operation P.C.B.

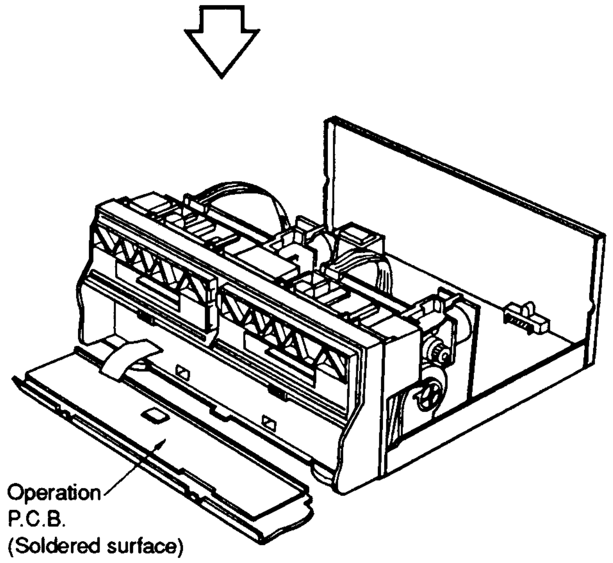
Procedure
1→2→17


Claw
Screwdriver
Fix piece
①
Fix piece
Front panel/ front grill

1. Remove the 2 fix pieces.
2. Release the 4 claws with screwdriver, and remove the front panel/front grill in the direction of arrow ①.

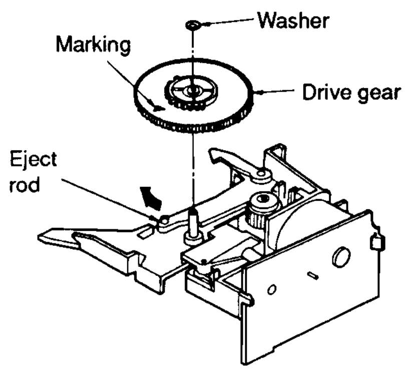

②
Front panel/front grill

3. Remove the front panel/front grill in the direction of arrow ②.


Operation P.C.B. (Soldered surface)

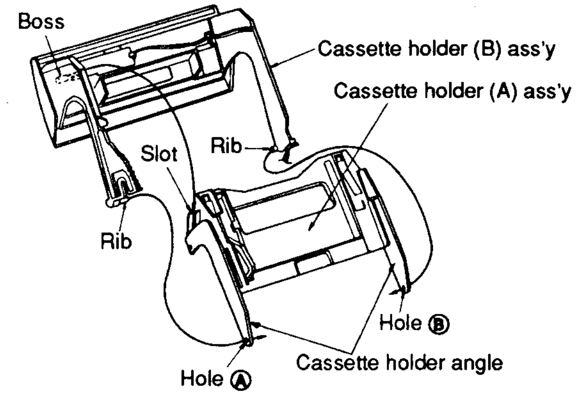
4. When checking the soldered surfaces of operation P.C.B. and replacing the parts, do as shown above.

■ Installing of Drive Gear

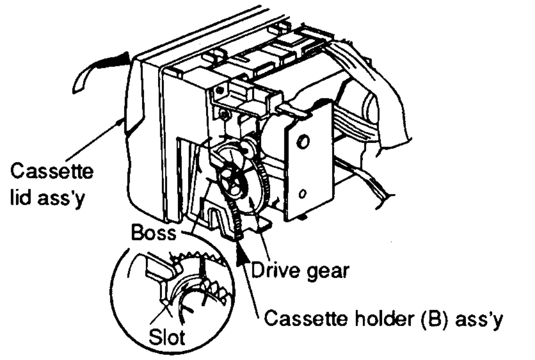

Washer
Marking
Drive gear
Eject rod

1. Locate the eject rod in the direction of arrow.
2. Place the drive gear so that the marking of drive gear is indicated as shown left.

■ Installing of Cassette Holder Angle and Cassette Holder (B) Ass'y

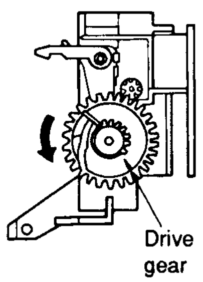

Boss
Cassette holder (B) ass'y
Cassette holder (A) ass'y
Slot
Rib
Rib
Hole Ⓑ
Hole Ⓐ
Cassette holder angle

1. Align the boss of cassette holder (B) ass'y to the slot of cassette holder (A) ass'y.
2. Insert the 2 ribs of cassette holder (B) ass'y into the 2 holes Ⓐ, Ⓑ of cassette holder angle.

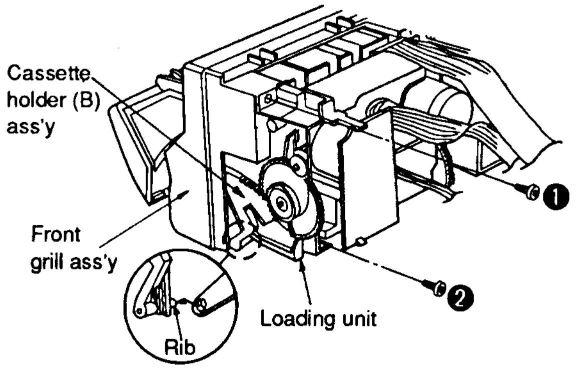

Cassette lid ass'y
Boss
Drive gear
Slot
Cassette holder (B) ass'y

3. Close the cassette lid ass'y in the direction of arrow.
4. Make sure the slot of drive gear matches the boss of cassette holder (B) ass'y.

■ Installing of Loading Unit



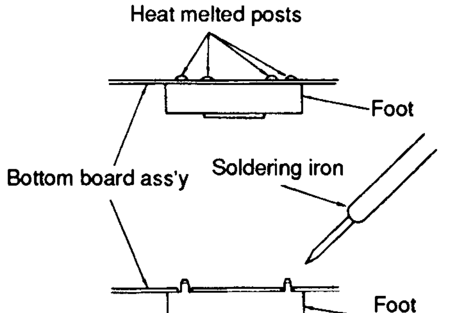
1. Rotate the drive gear fully in the direction of arrow.


Cassette holder (B) ass'y
Front grill ass'y
Rib
Loading unit
❶
❷

2. Insert the loading unit into the rib of cassette holder (B) ass'y, and install the front grill ass'y.
3. Tighten 2 screws (❶, ❷).

• Replacement of the Foot

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat melted posts
Foot
Bottom board ass'y
Soldering iron
Foot (RKA0055-N)

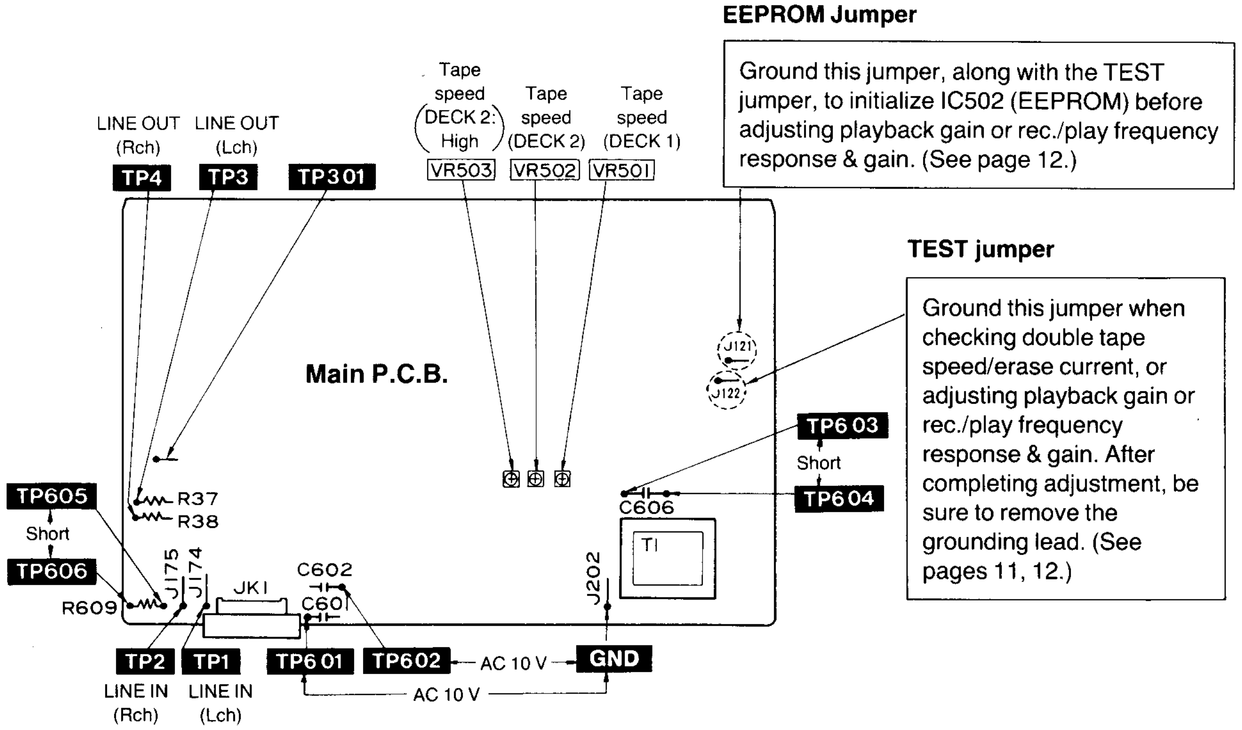
■ MEASUREMENTS AND ADJUSTMENTS

•The RS-CH750 is designed to operate on the power supplied from the SA-CH750 Tuner Amplifier. When using the RS-CH750 with the SA-CH750, short the following test points to each other:
TP603 to **TP604**, and **TP605** to **TP606** (see Fig. 1).

•To operate the RS-CH750 alone for testing or servicing, without having power supplied from the SA-CH750, use the following method:

1. Short **TP603** to **TP604**, and **TP605** to **TP606**.
2. Apply 10 V AC power between **TP601** and **GND**, and **TP602** and **GND**.

After testing or servicing, be sure to remove the shorting jumpers between TP603 – TP604 and TP605 – TP606.


EEPROM Jumper
TEST jumper
Tape speed (DECK 2: High)
Tape speed (DECK 2)
Tape speed (DECK 1)
LINE OUT (Rch)
LINE OUT (Lch)
TP4
TP3
TP301
VR503
VR502
VR501
Main P.C.B.
J121
J122
TP603
Short
TP604
C606
TI
J202
TP605
Short
TP606
R37
R38
R609
J175
J174
JK1
C602
C601
TP2
TP1
TP601
TP602
AC 10 V
GND
AC 10 V
LINE IN (Rch)
LINE IN (Lch)

Ground this jumper, along with the TEST jumper, to initialize IC502 (EEPROM) before adjusting playback gain or rec./play frequency response & gain. (See page 12.)

Ground this jumper when checking double tape speed/erase current, or adjusting playback gain or rec./play frequency response & gain. After completing adjustment, be sure to remove the grounding lead. (See pages 11, 12.)

Fig. 1

Measurement Condition

- •Reverse-mode selector switch; ⇄
- •One touch tape edit switch; NORMAL
- •Dolby NR switch; OFF
- •Make sure heads are clean.
- •Make sure capstan and pressure roller are clean.
- •Judgeable room temperature 20±5°C (68±9°F)

Measuring instrument

- •EVM (Electronic Voltmeter)
- •AF oscillator
- •Digital frequency counter

Test tape

- •Head azimuth adjustment (8 kHz, −20 dB); QZZCFM
- •Tape speed adjustment (3 kHz, −10 dB); QZZCWAT
- •Playback frequency response (315 Hz, 12.5 kHz, 10 kHz, 8 kHz, 4 kHz, 1 kHz, 250 Hz, 125 Hz, 63 Hz, −20 dB); QZZCFM
- •Playback gain adjustment (315 Hz, 0 dB); QZZCFM

HE
TA
Nor
Higl
ER
Not
The
•Autor
A micro
respons
conven
Rec./Pla
If the E
adjustm

0
ving

ST
before
quency

when
e
or
ain or
er
nt, be

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8 kHz, −20 dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the R-CH is maximized.
2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

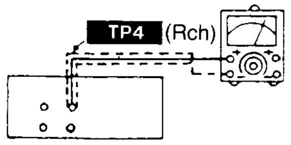


Fig. 2

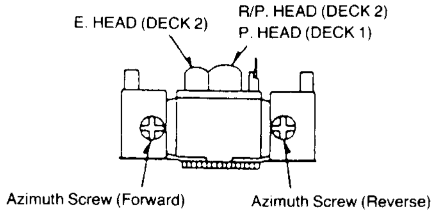

E. HEAD (DECK 2)
R/P. HEAD (DECK 2)
P. HEAD (DECK 1)
Azimuth Screw (Forward)
Azimuth Screw (Reverse)

Fig. 3

TAPE SPEED ADJUSTMENT (DECK 1/2)

Normal speed

1. Playback the middle portion of the test tape (QZZCWAT).
2. Adjust Deck 1=**VR501** and Deck 2=**VR502** so that the output is within the standard value.

Standard value: 3000±15 Hz (NORMAL speed)

High speed [Set the unit to forward (FWD) mode.]

3. Short-circuit the TEST jumper (J122).
4. Press the one touch tape edit (High) button. This will set the high speed mode.
5. Playback the middle portion on the test tape (QZZCWAT).
6. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 6000±600 Hz (HIGH speed)

7. Adjust **VR503** so that the output frequency of DECK 2 is within **±30 Hz** for the value of the output frequency of DECK 1.

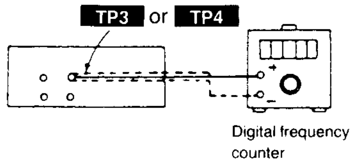

TP3 or TP4
Digital frequency counter

Fig. 4

ERASE CURRENT CONFIRMATION (DECK 2)

1. Short-circuit the TEST jumper (J122).
2. Press the REC PAUSE button.
3. Check if the output at this time between the erase current confirmation point **TP301** and **GND** (chassis) (the output on both edges of R301) is within the standard value.

Standard value: 210 mA±25 mA

4. Disconnect the TEST jumper (J122) from the frame ground.

Note: The test tape is not required when confirming the erase current.

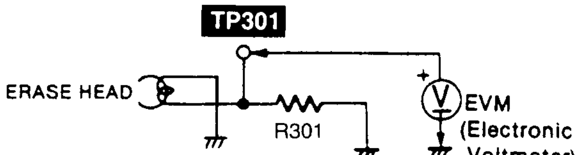

TP301
ERASE HEAD
R301
EVM
(Electronic
Voltmeter)

Fig. 5

The RS-CH750 can automatically adjust playback gain and rec./play frequency response & gain.

•Automatic adjustment of playback gain and rec./play frequency response & gain

A microprocessor (IC501) used within the RS-CH750 automatically adjusts its playback gain and rec./play frequency response & gain (factory adjustment) and stores adjustment data to an EEPROM chip (IC502). (Potentiometers have conventionally been used for these adjustments.)

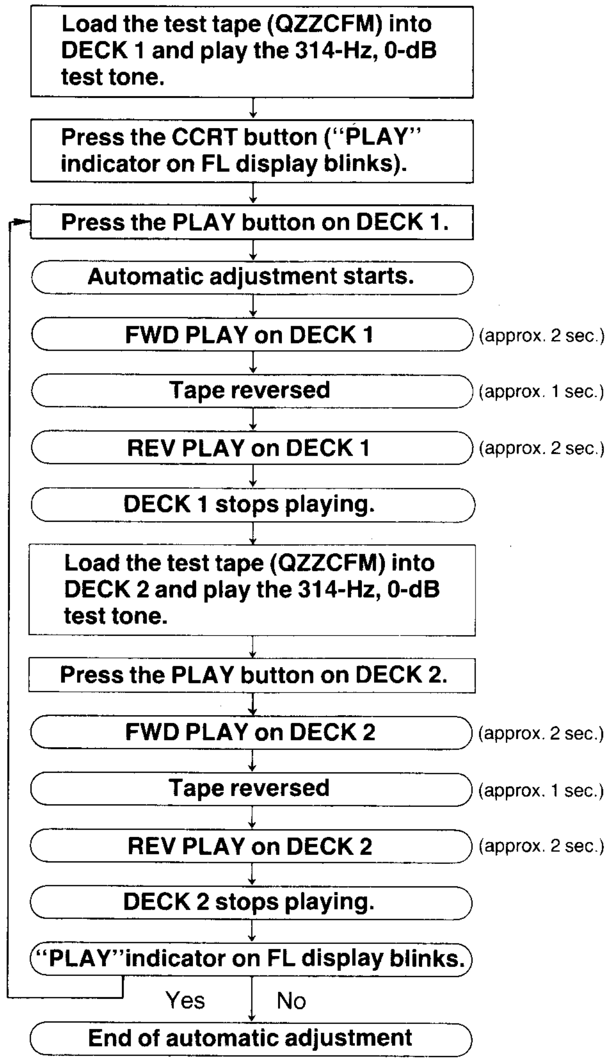
Playback gain adjustment
Rec./Play frequency response & gain adjustment
— Microprocessor (IC501) (Auto adjustment) — EEPROM (IC502) (Data memory)
— Conventionally adjusted with potentiometers.

If the EEPROM chip (IC502) or any of the head AF signal line components is replaced for servicing, the unit requires re-adjustment. (Refer to page 12.)

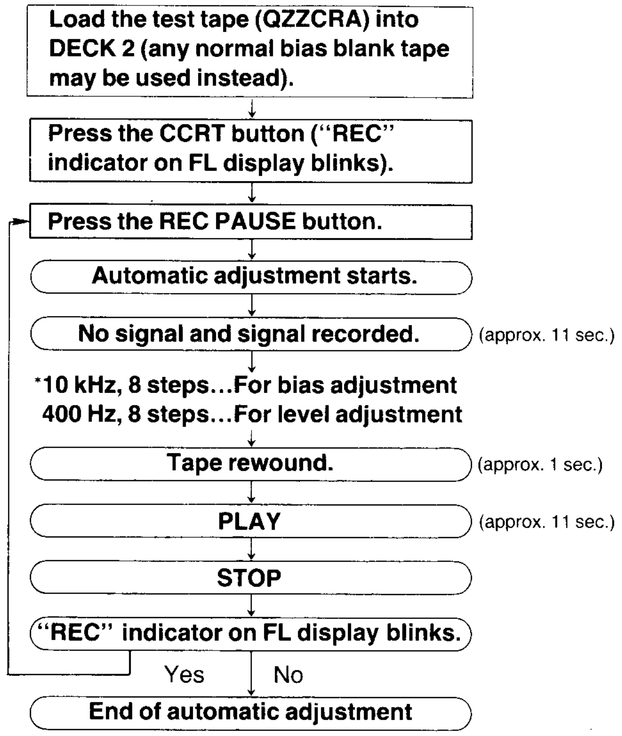
•Preparations for Adjustment

1. Connect an AF oscillator to the line inputs, TP1 (L channel) and TP2 (R channel) (see Fig. 1).
2. Connect an AC voltmeter to the line outputs, TP3 (L channel) and TP4 (R channel) (see Fig. 1).
3. Make sure that the power is turned off, and then ground the EEPROM jumper (J121) and TEST jumper (J122) on the Main P.C.B. to the frame ground.
4. Turn on the power (see page 10).
   The EEPROM (IC502) is initialized and the FL display shows blinking letters "RC" and "CCRT".
5. Apply a test tone signal (315 Hz, −8 dB) from the AF oscillator to the line inputs (TP1 for channel L, TP2 for channel R).
6. Make sure that no tape is loaded in DECK 1 or DECK 2.
   While pressing and holding the REC PAUSE button, adjust the AF oscillator output level until the signal level at the line outputs (TP3 for L channel, TP4 for R channel) is 400 mV. After setting the AF oscillator output level, keep holding down the REC PAUSE button for approx. 5 sec.
7. Release the REC PAUSE button.
8. Disconnect EEPROM jumper (J121) from the frame ground.

•Playback Gain Adjustment


Load the test tape (QZZCFM) into DECK 1 and play the 314-Hz, 0-dB test tone.
Press the CCRT button ("PLAY" indicator on FL display blinks).
Press the PLAY button on DECK 1.
Automatic adjustment starts.
FWD PLAY on DECK 1 (approx. 2 sec.)
Tape reversed (approx. 1 sec.)
REV PLAY on DECK 1 (approx. 2 sec.)
DECK 1 stops playing.
Load the test tape (QZZCFM) into DECK 2 and play the 314-Hz, 0-dB test tone.
Press the PLAY button on DECK 2.
FWD PLAY on DECK 2 (approx. 2 sec.)
Tape reversed (approx. 1 sec.)
REV PLAY on DECK 2 (approx. 2 sec.)
DECK 2 stops playing.
"PLAY" indicator on FL display blinks.
Yes
No
End of automatic adjustment

•Rec./Play Frequency Response & Gain Adjustment


Load the test tape (QZZCRA) into DECK 2 (any normal bias blank tape may be used instead).
Press the CCRT button ("REC" indicator on FL display blinks).
Press the REC PAUSE button.
Automatic adjustment starts.
No signal and signal recorded. (approx. 11 sec.)
*10 kHz, 8 steps...For bias adjustment
400 Hz, 8 steps...For level adjustment
Tape rewound. (approx. 1 sec.)
PLAY (approx. 11 sec.)
STOP
"REC" indicator on FL display blinks.
Yes
No
End of automatic adjustment

Note: ☐ .. Manual ⬭ ...automatic

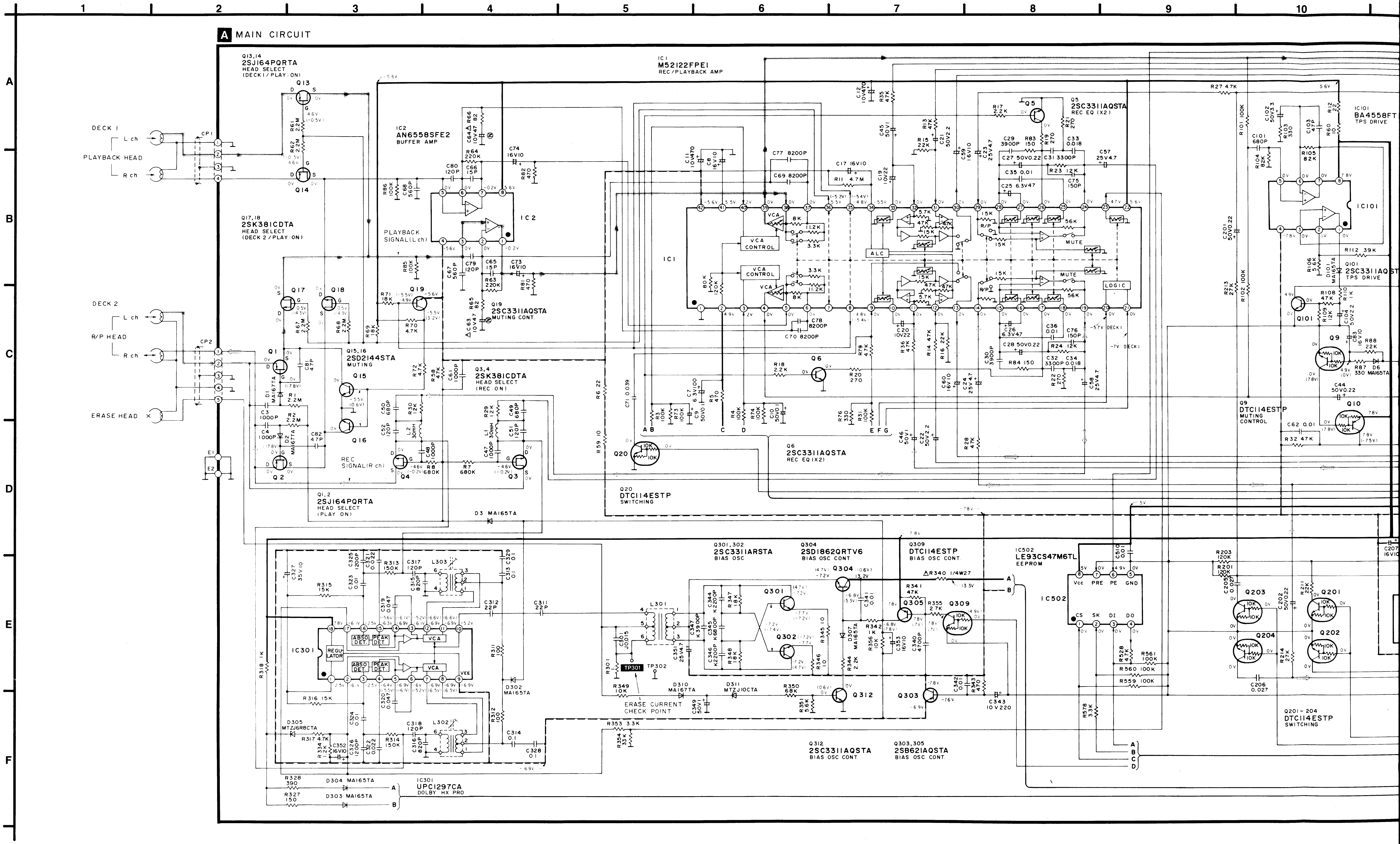
•Post Auto-adjustment Checks

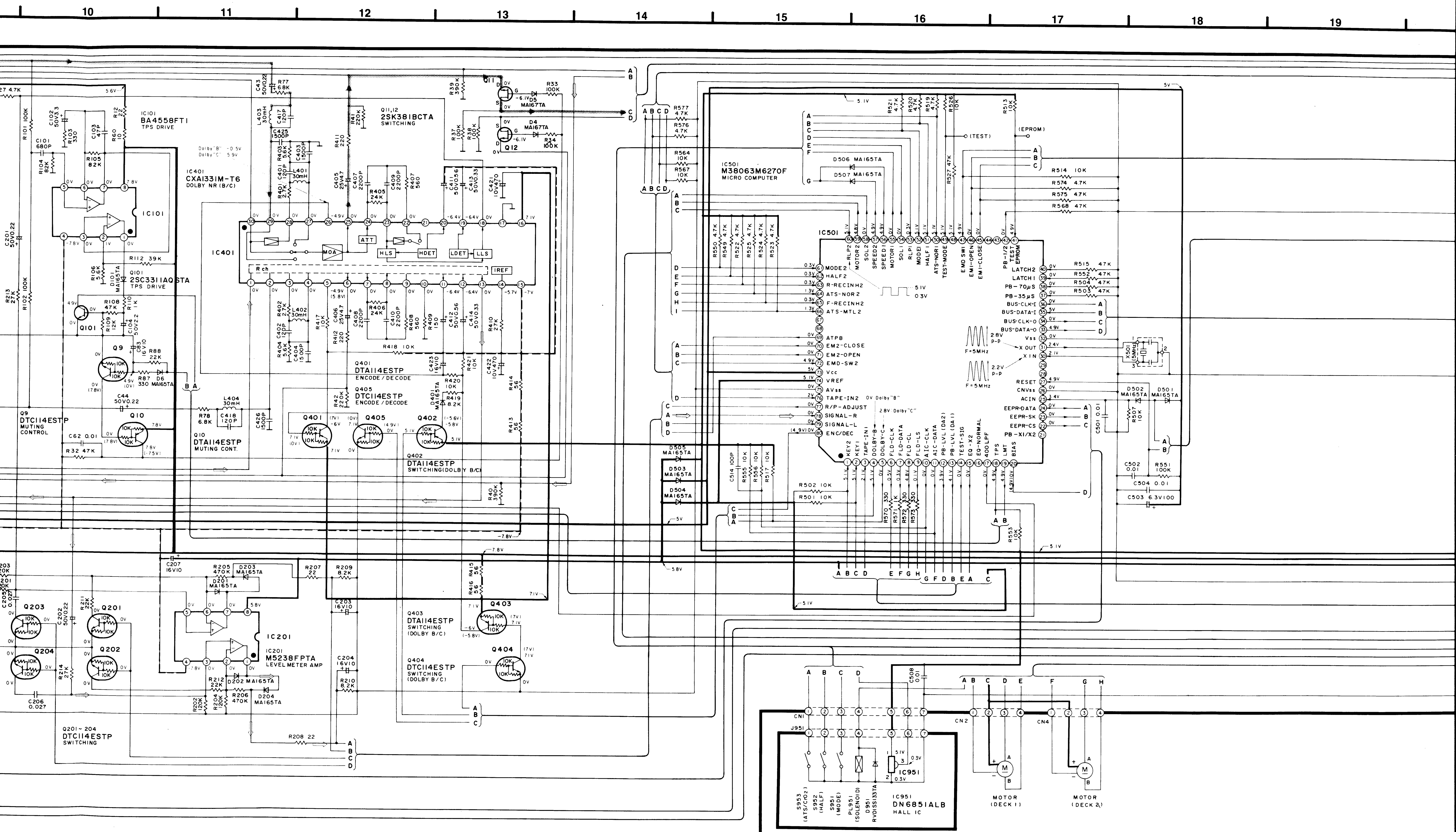
1. Press the CCRT button.
2. CCRT indicator appears on the FL display.
3. Make sure that the FL display shows the following information:

	PLAY indicator on DECK 1	PLAY indicator on DECK 2	REC indicator on DECK 2
OK	Off	Off	Off
NG (readjustment required)	"PLAY" indicator blinks.	"PLAY" indicator blinks.	"REC" indicator blinks.

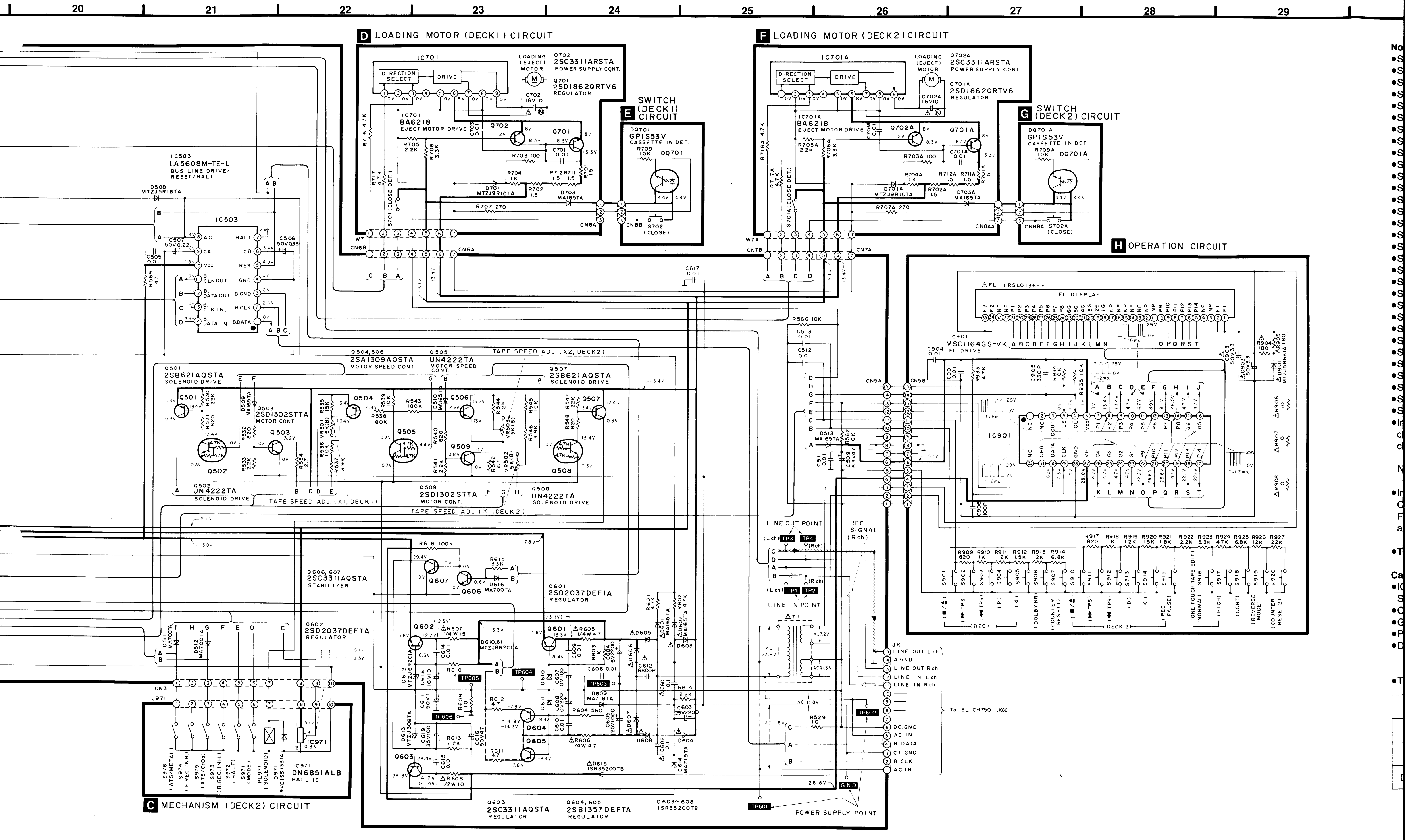
4. Disconnect TEST jumper (J122) from the frame ground.

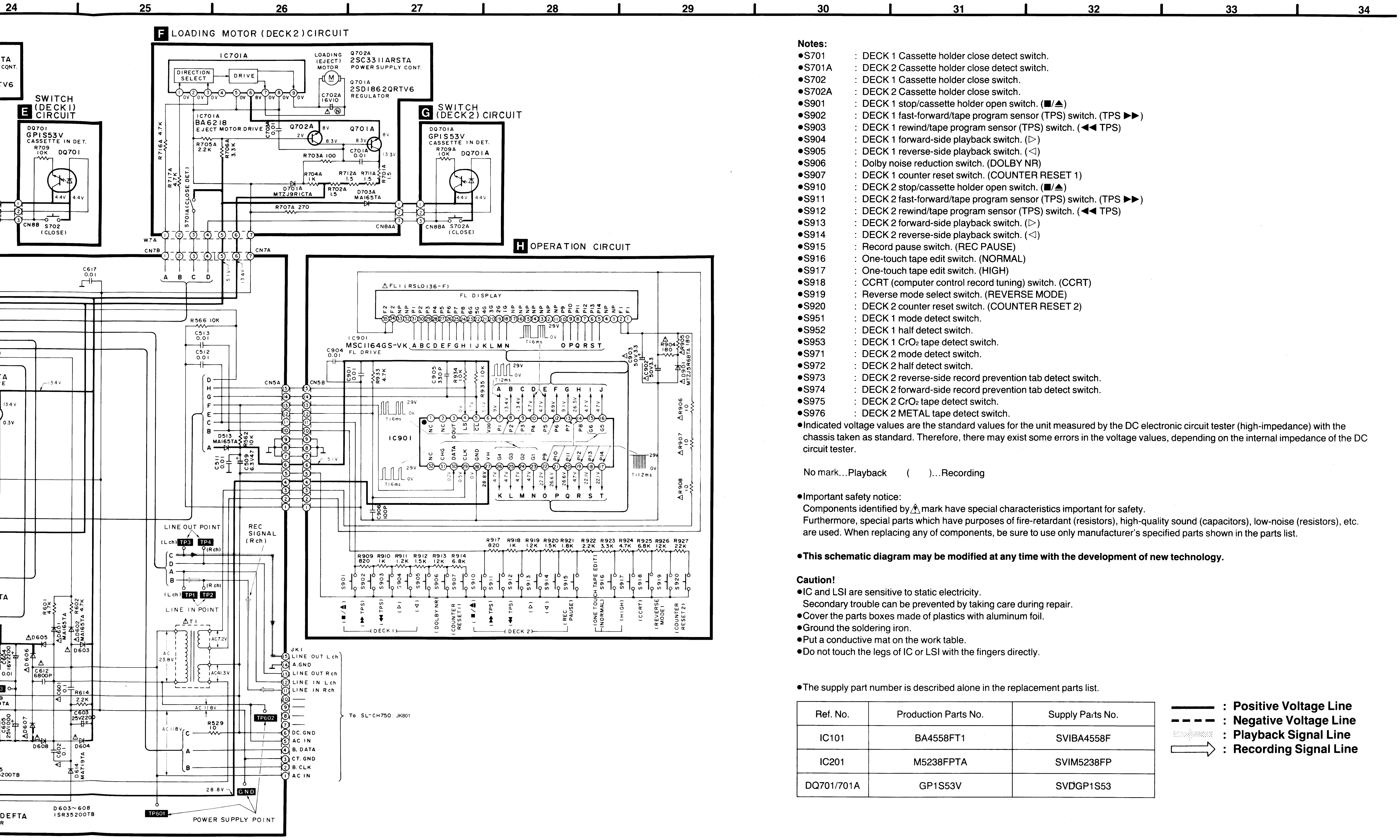
■ SCHEMATIC DIAGRAM (Parts list on pages 28~31.)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
A MAIN CIRCUIT
DECK 1
L ch
PLAYBACK HEAD
R ch
DECK 2
R/P HEAD
ERASE HEAD
CP1
CP2
E1
E2
Q13,14
2SJ164PQRTA
HEAD SELECT
(DECK 1 / PLAY·ON)
Q17,18
2SK381CDTA
HEAD SELECT
(DECK 2 / PLAY·ON)
Q1,2
2SJ164PQRTA
HEAD SELECT
(PLAY ON)
Q15,16
2SD2144STA
MUTING
Q3,4
2SK381CDTA
HEAD SELECT
(REC ON)
IC2
AN6558SFE2
BUFFER AMP
PLAYBACK
SIGNAL(L ch)
REC
SIGNAL(R ch)
Q19
2SC3311AQSTA
MUTING CONT.
IC1
M52122FPE1
REC/PLAYBACK AMP
VCA
VCA CONTROL
ALC
MUTE
LOGIC
Q5
2SC3311AQSTA
REC EQ (X2)
Q6
2SC3311AQSTA
REC EQ (X2)
Q20
DTC114ESTP
SWITCHING
IC101
BA4558FT
TPS DRIVE
Q101
2SC3311AQST
TPS DRIVE
Q9
DTC114ESTP
MUTING
CONTROL
IC301
UPC1297CA
DOLBY HX PRO
REGU-LATOR
ABSO DET.
PEAK DET.
Q301,302
2SC3311ARSTA
BIAS OSC
Q304
2SD1862QRTV6
BIAS OSC CONT.
Q309
DTC114ESTP
BIAS OSC CONT.
Q312
2SC3311AQSTA
BIAS OSC CONT.
Q303,305
2SB621AQSTA
BIAS OSC CONT.
TP301
TP302
ERASE CURRENT
CHECK POINT
IC502
LE93CS47M6TL
EEPROM
Vcc
PRE
PE
GND
CS
SK
DI
DO
Q201~204
DTC114ESTP
SWITCHING
D3 MA165TA
D302 MA165TA
D303 MA165TA
D304 MA165TA
D305 MTZJ6R8CTA
D307 MA165TA
D310 MA167TA
D311 MTZJ10CTA
L301
L302
L303
R340 1/4W27


10
11
12
13
14
15
16
17
18
19
IC101
BA4558FT1
TPS DRIVE
Dolby "B" -0.5V
Dolby "C" 5.9V
IC401
CXA1331M-T6
DOLBY NR (B/C)
Q11,12
2SK381BCTA
SWITCHING
Q11
Q12
D5 MA167TA
D4 MA167TA
R33 100K
R34 100K
R39 390K
R37 100K
R38 100K
Q101
2SC3311AQSTA
TPS DRIVE
Q9
DTC114ESTP
MUTING CONTROL
Q10
DTA114ESTP
MUTING CONT.
Q401
DTA114ESTP
ENCODE / DECODE
Q405
DTC114ESTP
ENCODE / DECODE
Q402
DTA114ESTP
SWITCHING(DOLBY B/C)
Q403
DTA114ESTP
SWITCHING
(DOLBY B/C)
Q404
DTC114ESTP
SWITCHING
(DOLBY B/C)
IC201
M5238FPTA
LEVEL METER AMP
Q201~204
DTC114ESTP
SWITCHING
Q201
Q202
Q203
Q204
R112 39K
R418 10K
R208 22
R207 22
R209 8.2K
R210 8.2K
C203 16V10
C204 16V10
C207 16V10
MOA
ATT
HLS
HDET
LDET
LLS
Rch
IREF
IC501
M38063M6270F
MICRO COMPUTER
(TEST)
(EPROM)
R514 10K
R574 4.7K
R575 4.7K
R568 47K
R515 47K
R552 47K
R504 47K
R503 47K
R577 4.7K
R576 4.7K
R564 10K
R567 10K
D506 MA165TA
D507 MA165TA
D505 MA165TA
D503 MA165TA
D504 MA165TA
D502 MA165TA
D501 MA165TA
R502 10K
R501 10K
R551 100K
C502 0.01
C504 0.01
C503 6.3V100
C501 0.01
X501 (5MHz)
F=5MHz
2.8V P-P
2.2V P-P
5.1V
0.3V
MODE2
HALF2
R-RECINH2
ATS-NOR2
F-RECINH2
ATS-MTL2
ATPB
EM2-CLOSE
EM2-OPEN
EMD-SW2
Vcc
VREF
AVss
TAPE-IN2
R/P-ADJUST
SIGNAL-R
SIGNAL-L
ENC/DEC
0V Dolby "B"
2.8V Dolby "C"
RLP2
MOTOR2
SOL2
SPEED2
SPEED1
MOTOR1
SOL1
RLP1
MODE1
HALF1
ATS-NOR1
TEST-MODE
EMD SW1
EM1-OPEN
EM1-CLOSE
PB-1/2
TEST
EPROM
LATCH2
LATCH1
PB-70μS
PB-35μS
BUS-CLK-I
BUS-DATA-I
BUS-CLK-O
BUS-DATA-O
Vss
X OUT
X IN
RESET
CNVss
ACIN
EEPR-DATA
EEPR-SK
EEPR-CS
PB-X1/X2
KEY2
KEY1
TAPE-IN1
DOLBY-B
DOLBY-C
FLD-CLK
FLD-DATA
FLD-CL
FLD-LS
AIC-CLK
AIC-DATA
PB-LVL (DA2)
PB-LVL (DA1)
TEST-SIG
EQ-X2
EQ-NORMAL
400LPF
TPS
LMT
BIAS
CN1
J951
CN2
CN4
S953 (ATS/CrO2)
S952 (HALF)
S951 (MODE)
PL951 (SOLENOID)
D951 RVD1SS133TA
IC951
DN6851ALB
HALL IC
MOTOR (DECK 1)
MOTOR (DECK 2)

B MECHANISM (DECK1) CIRCUIT


20
21
22
23
24
25
26
27
28
29
D LOADING MOTOR (DECK1) CIRCUIT
IC701
DIRECTION SELECT
DRIVE
LOADING (EJECT) MOTOR
Q702 2SC3311ARSTA POWER SUPPLY CONT.
Q701 2SD1862QRTV6 REGULATOR
IC701 BA6218 EJECT MOTOR DRIVE
S701 (CLOSE DET.)
CN6B
CN6A
W7
CN8A
E SWITCH (DECK1) CIRCUIT
DQ701 GP1S53V CASSETTE IN DET.
S702 (CLOSE)
CN8B
F LOADING MOTOR (DECK2) CIRCUIT
IC701A
Q702A 2SC3311ARSTA POWER SUPPLY CONT.
Q701A 2SD1862QRTV6 REGULATOR
IC701A BA6218 EJECT MOTOR DRIVE
S701A (CLOSE DET.)
CN7B
CN7A
W7A
CN8AA
G SWITCH (DECK2) CIRCUIT
DQ701A GP1S53V CASSETTE IN DET.
S702A (CLOSE)
CN8BA
H OPERATION CIRCUIT
FL1 (RSL0136-F) FL DISPLAY
IC901 MSC1164GS-VK FL DRIVE
IC503 LA5608M-TE-L BUS LINE DRIVE/ RESET/HALT
D508 MTZJ5R1BTA
Q501 2SB621AQSTA SOLENOID DRIVE
Q502 UN4222TA SOLENOID DRIVE
Q503 2SD1302STTA MOTOR CONT.
Q504,506 2SA1309AQSTA MOTOR SPEED CONT.
Q505 UN4222TA MOTOR SPEED CONT.
Q507 2SB621AQSTA SOLENOID DRIVE
Q508 UN4222TA SOLENOID DRIVE
Q509 2SD1302STTA MOTOR CONT.
TAPE SPEED ADJ. (X2, DECK2)
TAPE SPEED ADJ. (X1, DECK1)
TAPE SPEED ADJ (X1, DECK2)
Q606, 607 2SC3311AQSTA STABILIZER
Q601 2SD2037DEFTA REGULATOR
Q602 2SD2037DEFTA REGULATOR
Q603 2SC3311AQSTA REGULATOR
Q604, 605 2SB1357DEFTA REGULATOR
D603~608 1SR35200TB
TP601
TP602
TP603
TP604
TP605
TP606
LINE OUT POINT
LINE IN POINT
REC SIGNAL (Rch)
POWER SUPPLY POINT
GND
T1
JK1
LINE OUT Lch
A.GND
LINE OUT Rch
LINE IN Lch
LINE IN Rch
DC.GND
AC IN
B. DATA
CT. GND
B. CLK
AC IN
To SL-CH750 JK801
CN5A
CN5B
CN3
J971
C MECHANISM (DECK2) CIRCUIT
S976 (ATS/METAL)
S974 (F.REC.INH.)
S975 (ATS/CrO2)
S973 (R.REC.INH.)
S972 (HALF)
S971 (MODE)
PL971 (SOLENOID)
D971 RVD1SS133TA
IC971 DN6851ALB HALL IC
S901
S902 (TPS)
S903 (TPS)
S904
S905
S906 (DOLBY NR)
S907 (COUNTER RESET 1)
S910
S911 (TPS)
S912 (TPS)
S913
S914
S915 (REC PAUSE)
S916 (ONE TOUCH TAPE EDIT) (NORMAL)
S917 (HIGH)
S918 (CCRT)
S919 (REVERSE MODE)
S920 (COUNTER RESET 2)
(DECK 1)
(DECK 2)


24
25
26
27
28
29
30
31
32
33
34
F LOADING MOTOR (DECK2) CIRCUIT
IC701A
DIRECTION SELECT
DRIVE
LOADING (EJECT) MOTOR
Q702A 2SC3311ARSTA POWER SUPPLY CONT.
Q701A 2SD1862QRTV6 REGULATOR
C702A 16V10
IC701A BA6218 EJECT MOTOR DRIVE
Q702A
Q701A
R716A 4.7K
R705A 2.2K
R706A 3.3K
R703A 100
C701A 0.01
R717A 4.7K
S701A (CLOSE DET.)
R704A 1K
R712A 1.5
R711A 1.5
R701A 1.5
D701A MTZJ9R1CTA
R702A 1.5
D703A MA165TA
R707A 270
CN8AA
W7A
CN7B
CN7A
E SWITCH (DECK1) CIRCUIT
DQ701 GP1S53V CASSETTE IN DET.
R709 10K
DQ701
CN8B S702 (CLOSE)
G SWITCH (DECK2) CIRCUIT
DQ701A GP1S53V CASSETTE IN DET.
R709A 10K
DQ701A
CN8BA S702A (CLOSE)
H OPERATION CIRCUIT
FL1 (RSL0136-F)
FL DISPLAY
IC901 MSC1164GS-VK FL DRIVE
C904 0.01
C901 0.01
R933 4.7K
C905 330P
R934 15K
R935 10K
C903 50V33
C902 50V3.3
R904 180
R905 180
D901 MTZJ5R6BTA
R906 10
R907 10
R908 10
C906 100P
IC901
C617 0.01
R566 10K
C513 0.01
C512 0.01
CN5A
CN5B
D513 MA165TA
R562 10K
C511 0.01
C509 6.3V47
R909 820
R910 1K
R911 1.2K
R912 1.5K
R913 12K
R914 6.8K
R917 820
R918 1K
R919 1.2K
R920 1.5K
R921 1.8K
R922 2.2K
R923 3.3K
R924 4.7K
R925 6.8K
R926 12K
R927 22K
S901 S902 S903 S904 S905 S906 S907 S910 S911 S912 S913 S914 S915 S916 S917 S918 S919 S920
DECK 1
DECK 2
(DOLBY NR)
(COUNTER RESET1)
(REC PAUSE)
(ONE TOUCH TAPE EDIT) (NORMAL)
(HIGH)
(CCRT)
(REVERSE MODE)
(COUNTER RESET2)
LINE OUT POINT
(L ch) TP3 TP4 (R ch)
(L ch) TP1 TP2 (R ch)
LINE IN POINT
REC SIGNAL (R ch)
T1
JK1
LINE OUT L ch
A.GND
LINE OUT R ch
LINE IN L ch
LINE IN R ch
DC.GND
AC IN
B.DATA
CT.GND
B.CLK
AC IN
To SL-CH750 JK801
TP602
R529 10
TP601
GND
28.8V
POWER SUPPLY POINT
D603~608 1SR35200TB
D605
D606
D601 MA165TA
D602 MA165TA
D603
D604
D607
D608
D614 MA719TA
R601 47K
R602 4.7K
C612 6800P
C601 0.1
R614 2.2K
C603 25V2200
C602 0.1

Notes:

- S701 : DECK 1 Cassette holder close detect switch.
- S701A : DECK 2 Cassette holder close detect switch.
- S702 : DECK 1 Cassette holder close switch.
- S702A : DECK 2 Cassette holder close switch.
- S901 : DECK 1 stop/cassette holder open switch. (■/▲)
- S902 : DECK 1 fast-forward/tape program sensor (TPS) switch. (TPS ▶▶)
- S903 : DECK 1 rewind/tape program sensor (TPS) switch. (◀◀ TPS)
- S904 : DECK 1 forward-side playback switch. (▷)
- S905 : DECK 1 reverse-side playback switch. (◁)
- S906 : Dolby noise reduction switch. (DOLBY NR)
- S907 : DECK 1 counter reset switch. (COUNTER RESET 1)
- S910 : DECK 2 stop/cassette holder open switch. (■/▲)
- S911 : DECK 2 fast-forward/tape program sensor (TPS) switch. (TPS ▶▶)
- S912 : DECK 2 rewind/tape program sensor (TPS) switch. (◀◀ TPS)
- S913 : DECK 2 forward-side playback switch. (▷)
- S914 : DECK 2 reverse-side playback switch. (◁)
- S915 : Record pause switch. (REC PAUSE)
- S916 : One-touch tape edit switch. (NORMAL)
- S917 : One-touch tape edit switch. (HIGH)
- S918 : CCRT (computer control record tuning) switch. (CCRT)
- S919 : Reverse mode select switch. (REVERSE MODE)
- S920 : DECK 2 counter reset switch. (COUNTER RESET 2)
- S951 : DECK 1 mode detect switch.
- S952 : DECK 1 half detect switch.
- S953 : DECK 1 CrO_2 tape detect switch.
- S971 : DECK 2 mode detect switch.
- S972 : DECK 2 half detect switch.
- S973 : DECK 2 reverse-side record prevention tab detect switch.
- S974 : DECK 2 forward-side record prevention tab detect switch.
- S975 : DECK 2 CrO_2 tape detect switch.
- S976 : DECK 2 METAL tape detect switch.
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark...Playback ( )...Recording

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- **This schematic diagram may be modified at any time with the development of new technology.**

Caution!

- IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

- The supply part number is described alone in the replacement parts list.

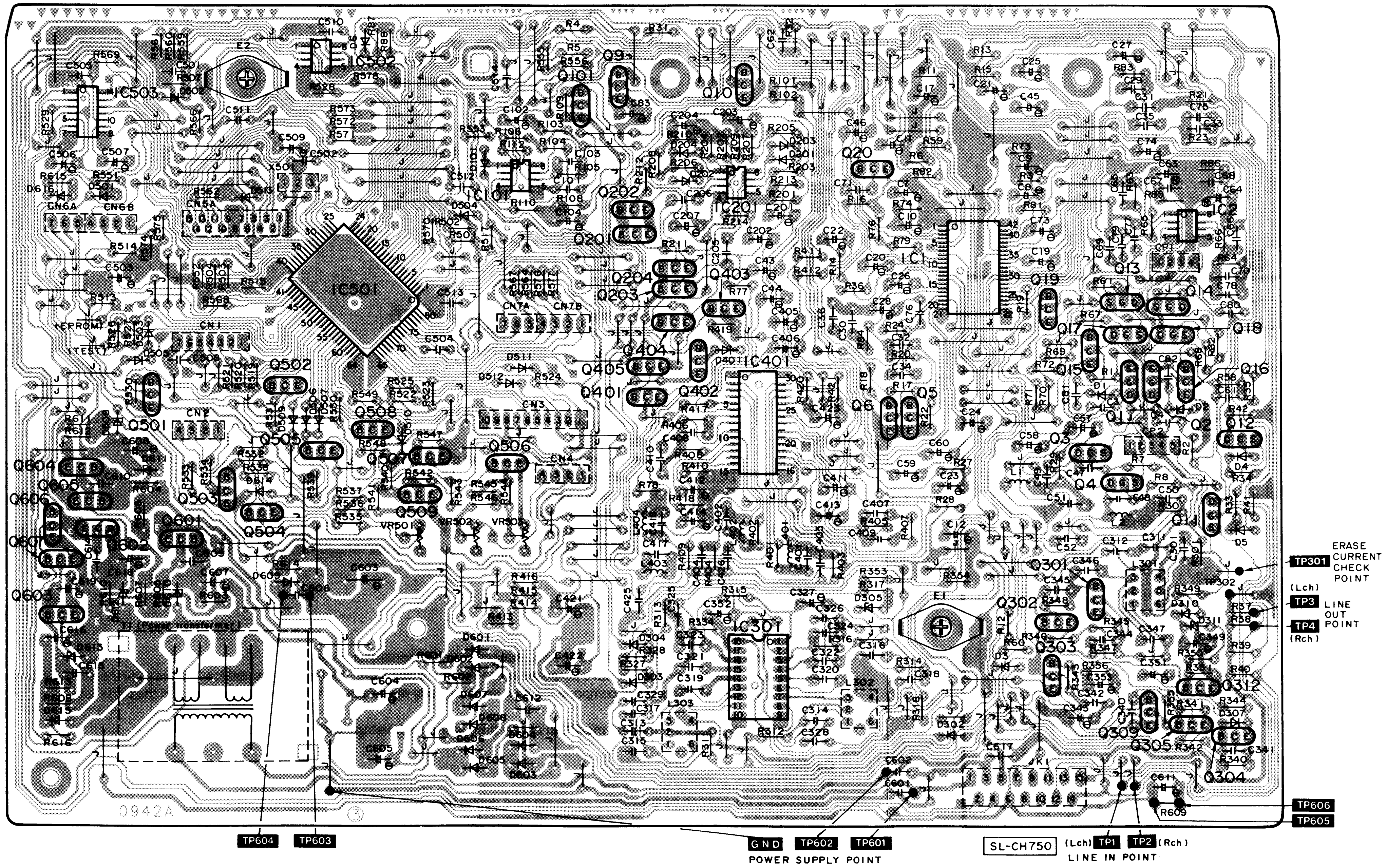
Ref. No.	Production Parts No.	Supply Parts No.
IC101	BA4558FT1	SVIBA4558F
IC201	M5238FPTA	SVIM5238FP
DQ701/701A	GP1S53V	SVDGP1S53

━━ : **Positive Voltage Line**
– – – : **Negative Voltage Line**
░░ : **Playback Signal Line**
⇨ : **Recording Signal Line**

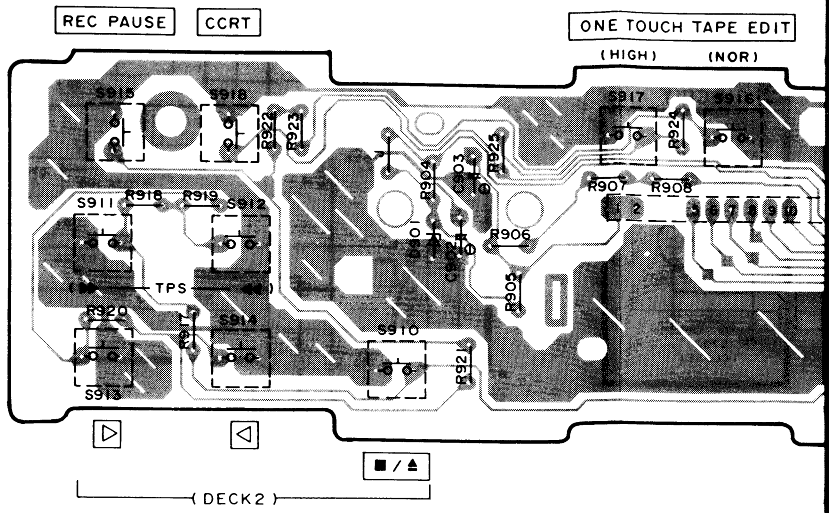
■ PRINTED CIRCUIT BOARD DIAGRAM

•This circuit board diagram may be modified at any time with the development of new technology.

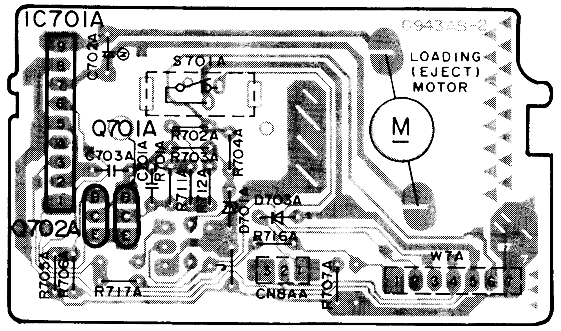
A MAIN P.C.B. (REP1487A-M)


IC501
IC502
IC503
IC301
IC401
IC1
IC101
IC201
IC2
E1
E2
T1 (Power transformer)
(EPROM)
(TEST)
0942A
ERASE CURRENT CHECK POINT
TP301
TP302
(Lch)
TP3
LINE OUT POINT
TP4
(Rch)
TP606
TP605
TP604
TP603
GND
TP602
TP601
POWER SUPPLY POINT
SL-CH750
(Lch)
TP1
TP2
(Rch)
LINE IN POINT

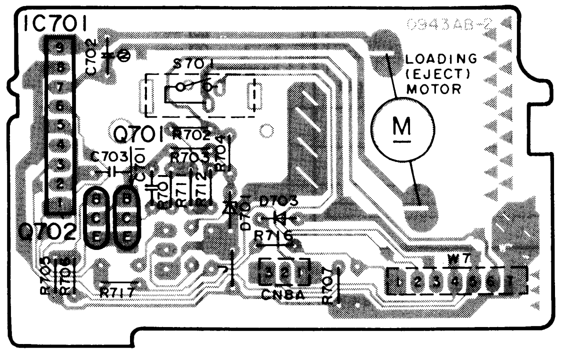
H OPERATION P.C.B. (REP1488A-S)


REC PAUSE
CCRT
ONE TOUCH TAPE EDIT
(HIGH)
(NOR)
S915
S918
S917
S916
S911
S912
S914
S910
S913
S920
TPS
▷
◁
■/▲
DECK2

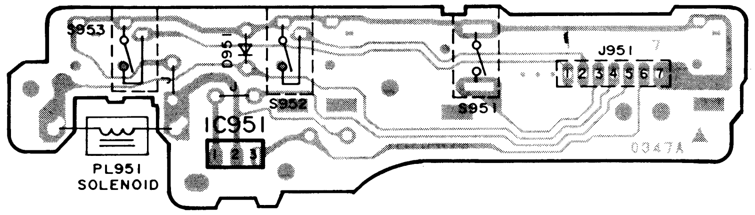
F LOADING MOTOR (DECK2) P.C.B. (REP1564A-S)


IC701A
0943AB-2
S701A
Q701A
Q702A
LOADING (EJECT) MOTOR
M
CN8AA
W7A

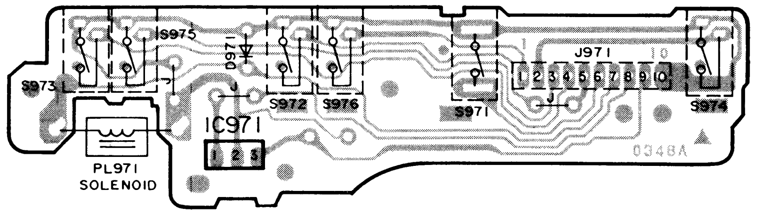
D LOADING MOTOR (DECK1) P.C.B. (REP1564A-S)


IC701
0943AB-2
S701
Q701
Q702
LOADING (EJECT) MOTOR
M
CN8A
W7

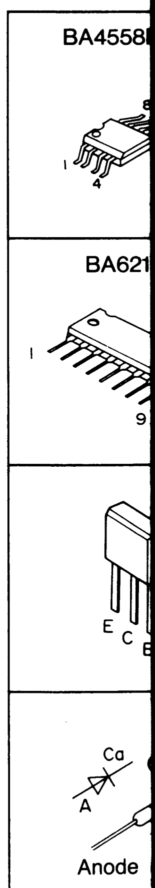
B MECHANISM (DECK1) P.C.B. (REP0531)

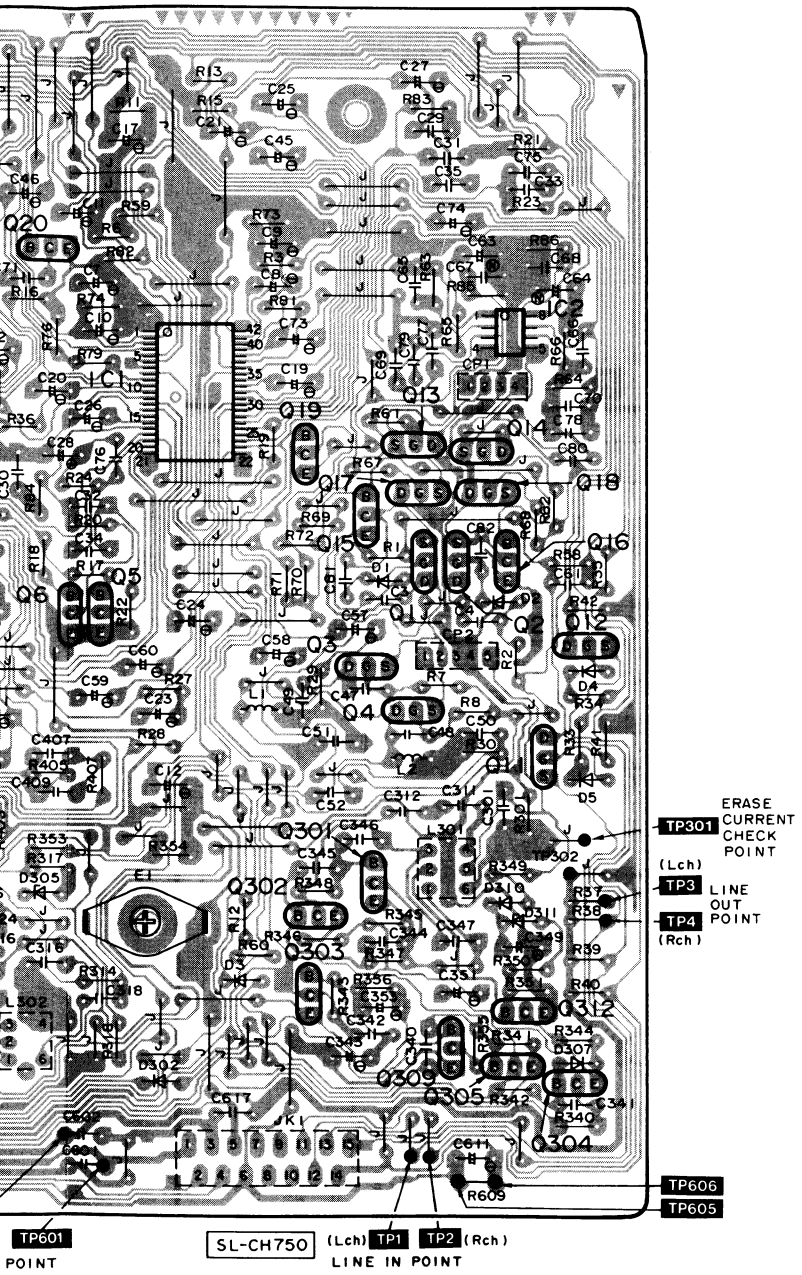

S953
D951
J951
S952
S951
IC951
PL951 SOLENOID
0347A

C MECHANISM (DECK2) P.C.B. (REP0532)

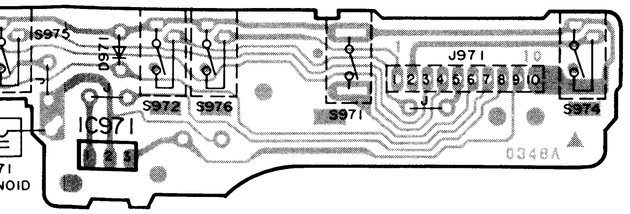

S975
S973
D971
J971
S972
S976
S971
S974
IC971
PL971 SOLENOID
0348A

•Terminal g

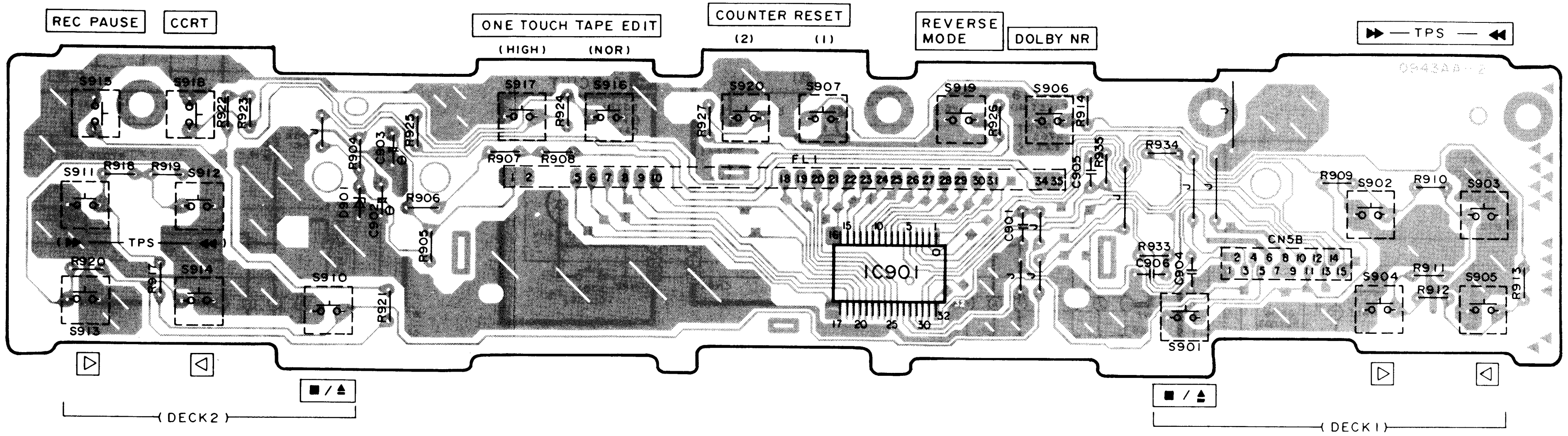

BA4558
BA621
E
C
Ca
A
Anode


ERASE CURRENT CHECK POINT
TP301
(Lch)
TP3 LINE OUT POINT
TP4 (Rch)
TP606
TP605
TP601
POINT
SL-CH750
(Lch) TP1 TP2 (Rch)
LINE IN POINT
IC1
IC2
E1
JK1

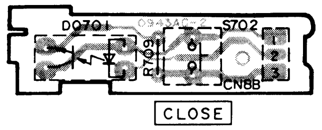
ECHANISM (DECK2) P.C.B. (REP0532)


S975
S972
S976
S971
J971
S974
IC971
0348A

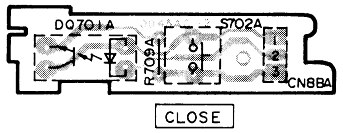
H OPERATION P.C.B. (REP1488A - S)


REC PAUSE
CCRT
ONE TOUCH TAPE EDIT
(HIGH) (NOR)
COUNTER RESET
(2) (1)
REVERSE MODE
DOLBY NR
▶▶ — TPS — ◀◀
S915
S918
S917
S916
S920
S907
S919
S906
S911
S912
S913
S914
S910
S902
S903
S904
S905
S901
FL1
IC901
CN5B
TPS
▷
◁
■/⏏
DECK2
DECK1

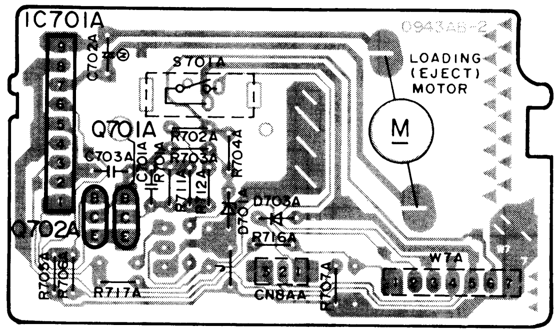
E SWITCH (DECK1) P.C.B. (REP1564A - S)


D0701
S702
R749
CN8B
CLOSE

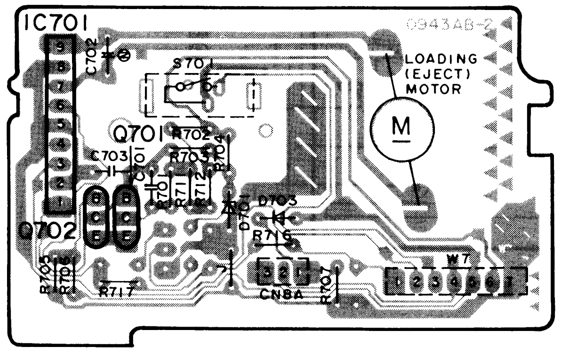
G SWITCH (DECK2) P.C.B. (REP1564A - S)


D0701A
S702A
R7094
CN8BA
CLOSE

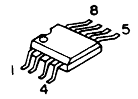
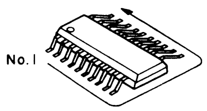
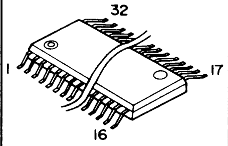
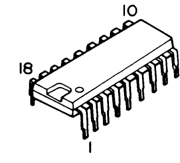
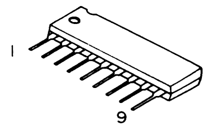
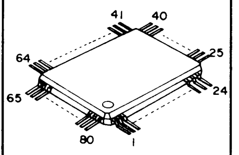
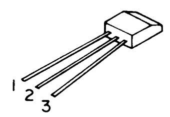
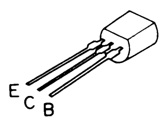
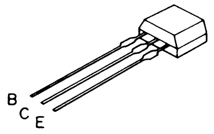
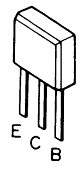
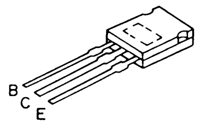
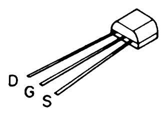
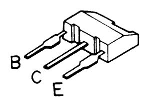
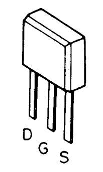
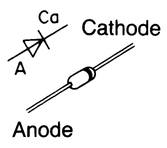
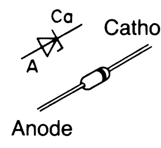
F LOADING MOTOR (DECK2) P.C.B. (REP1564A - S)


IC701A
S701A
Q701A
Q702A
LOADING (EJECT) MOTOR
M
CN8AA
W7A

D LOADING MOTOR (DECK1) P.C.B. (REP1564A - S)

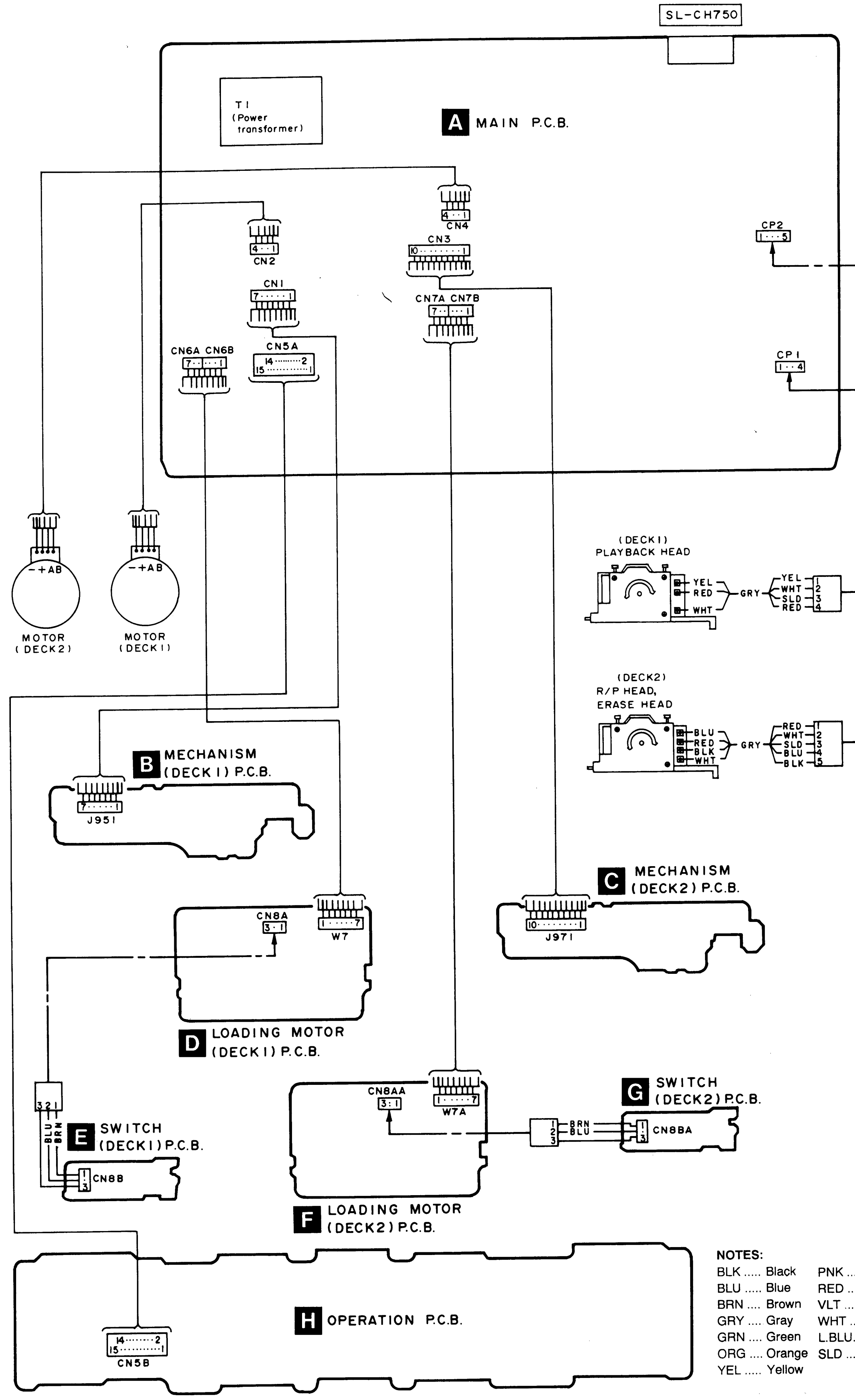

IC701
S701
Q701
Q702
LOADING (EJECT) MOTOR
M
CN8A
W7

•Terminal guide of IC's, transistors and diodes

BA4558FT1 	 No. 1	AN6558SFE2 8Pin LE93CS47M6TL 8Pin M5238FPTA 8Pin LA5608M-TE-L 14Pin	CXA1331M-T6 30Pin M52122FPE1 40Pin	MSC1164GS-VK 	UPC1297CA 
BA6218 	M38063M6270F 	DN6851ALB 	2SB621AQSTA 2SD1302STTA 	DTA114ESTP DTC114ESTP 	
	2SA1309AQSTA 2SC3311AQSTA 2SC3311ARSTA 2SD2144STA UN4222TA	2SB1357DEFTA 2SD2037DEFTA 	2SK381CDTA 	2SD1862QRTV6 	2SJ164PQRTA 
	MA165TA MA167TA MA700TA MA719TA 1SR35200TB RVD1SS133TA		MTZJ5R1BTA MTZJ5R6BTA MTZJ6R2CTA MTZJ6R8CTA MTZJ8R2CTA MTZJ9R1CTA MTZJ10CTA MTZJ30BTA		

8
5
1
4
32
17
16
18
10
9
1
1
9
41
40
64
25
65
24
80
1
1
2
3
E
C
B
B
C
E
E
C
B
B
C
E
D
G
S
B
C
E
D
G
S
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode

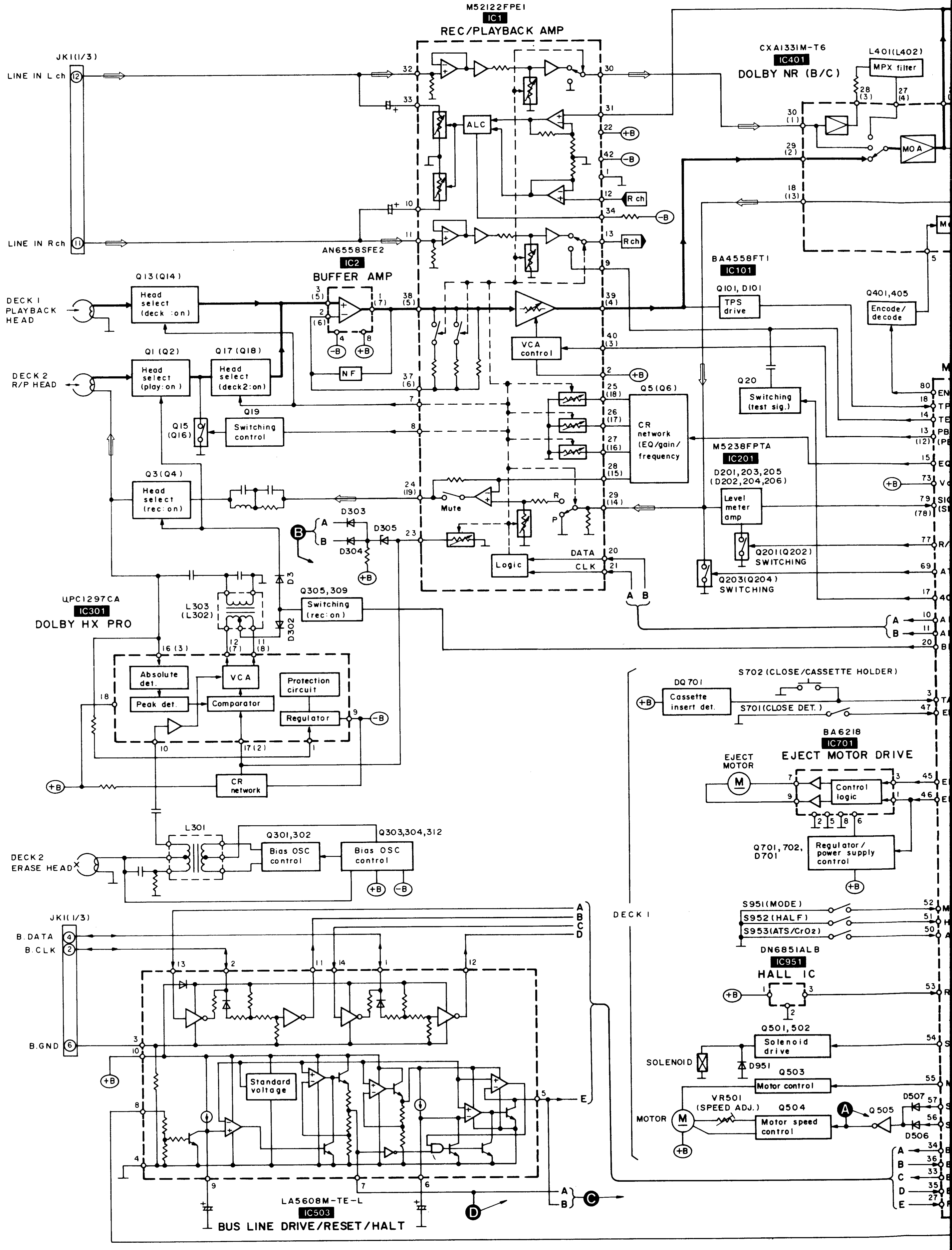
■ WIRING CONNECTION DIAGRAM


SL-CH750
T1 (Power transformer)
A MAIN P.C.B.
CN4
CN3
CN2
CN1
CN7A CN7B
CP2
CN6A CN6B
CN5A
CP1
MOTOR (DECK2)
MOTOR (DECK1)
(DECK1) PLAYBACK HEAD
YEL RED WHT GRY
YEL WHT SLD RED
(DECK2) R/P HEAD, ERASE HEAD
BLU RED BLK WHT GRY
RED WHT SLD BLU BLK
B MECHANISM (DECK1) P.C.B.
J951
C MECHANISM (DECK2) P.C.B.
J971
CN8A
W7
D LOADING MOTOR (DECK1) P.C.B.
CN8AA
W7A
G SWITCH (DECK2) P.C.B.
BRN BLU
CN8BA
E SWITCH (DECK1) P.C.B.
BLU BRN
CN8B
F LOADING MOTOR (DECK2) P.C.B.
H OPERATION P.C.B.
CN5B

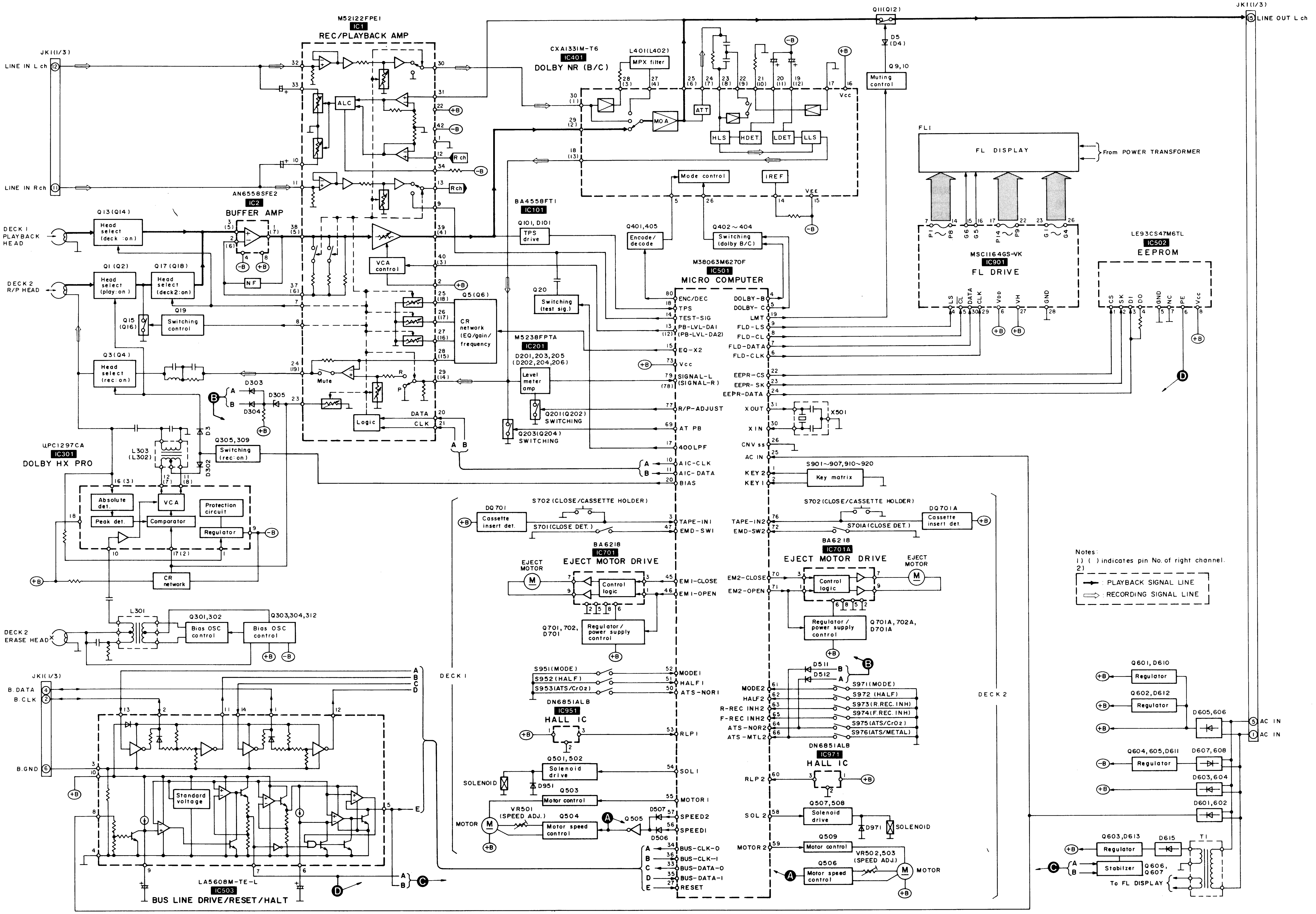
NOTES:

BLK	Black	PNK	Pink
BLU	Blue	RED	Red
BRN	Brown	VLT	Violet
GRY	Gray	WHT	White
GRN	Green	L.BLU	Light Blue
ORG	Orange	SLD	Shield Wire
YEL	Yellow		

■ BLOCK DIAGRAM


M52122FPE1
IC1
REC/PLAYBACK AMP
JK1(1/3)
LINE IN L ch
LINE IN R ch
ALC
R ch
CXA1331M-T6
IC401
DOLBY NR (B/C)
L401(L402) MPX filter
MOA
AN6558SFE2
IC2
BUFFER AMP
DECK 1 PLAYBACK HEAD
Q13(Q14) Head select (deck 1 on)
DECK 2 R/P HEAD
Q1(Q2) Head select (play: on)
Q17(Q18) Head select (deck2: on)
Q19 Switching control
Q15 (Q16)
NF
VCA control
Q3(Q4) Head select (rec: on)
Mute
D303
D304
D305
Logic
DATA
CLK
BA4558FT1
IC101
Q101, D101
TPS drive
Q401,405 Encode/decode
Q20 Switching (test sig.)
Q5(Q6) CR network (EQ/gain/frequency)
M5238FPTA
IC201
D201,203,205 (D202,204,206)
Level meter amp
Q201(Q202) SWITCHING
Q203(Q204) SWITCHING
μPC1297CA
IC301
DOLBY HX PRO
L303 (L302)
Q305,309 Switching (rec: on)
D3
D302
Absolute det.
Peak det.
VCA
Comparator
Protection circuit
Regulator
CR network
L301
Q301,302 Bias OSC control
Q303,304,312 Bias OSC control
DECK 2 ERASE HEAD
JK1(1/3)
B.DATA
B.CLK
B.GND
Standard voltage
LA5608M-TE-L
IC503
BUS LINE DRIVE/RESET/HALT
S702 (CLOSE/CASSETTE HOLDER)
DQ701 Cassette insert det.
S701(CLOSE DET.)
BA6218
IC701
EJECT MOTOR DRIVE
EJECT MOTOR
Control logic
Q701,702, D701
Regulator/power supply control
DECK 1
S951(MODE)
S952(HALF)
S953(ATS/CrO2)
DN6851ALB
IC951
HALL IC
Q501,502 Solenoid drive
SOLENOID
D951
Q503 Motor control
MOTOR
VR501 (SPEED ADJ.)
Q504 Motor speed control
Q505
D507
D506

■ BLOCK DIAGRAM


M52122FPE1
IC1
REC/PLAYBACK AMP
ALC
JK1(1/3)
LINE IN L ch
LINE IN R ch
AN6558SFE2
IC2
BUFFER AMP
Q13(Q14)
Head select (deck 1:on)
DECK 1 PLAYBACK HEAD
DECK 2 R/P HEAD
Q1(Q2)
Head select (play:on)
Q17(Q18)
Head select (deck2:on)
Q19
Switching control
Q15 (Q16)
Q3(Q4)
Head select (rec:on)
NF
VCA control
Q5(Q6)
CR network (EQ/gain/frequency)
Mute
Logic
DATA
CLK
D303
D304
D305
Q305,309
Switching (rec:on)
UPC1297CA
IC301
DOLBY HX PRO
L303 (L302)
Absolute det.
Peak det.
VCA
Comparator
Protection circuit
Regulator
CR network
L301
Q301,302
Bias OSC control
Q303,304,312
Bias OSC control
DECK 2 ERASE HEAD
JK1(1/3)
B.DATA
B.CLK
B.GND
Standard voltage
LA5608M-TE-L
IC503
BUS LINE DRIVE/RESET/HALT
CXA1331M-T6
IC401
DOLBY NR (B/C)
L401(L402)
MPX filter
MOA
ATT
HLS
HDET
LDET
LLS
Mode control
IREF
VEE
Vcc
Q401,405
Encode/decode
Q402～404
Switching (dolby B/C)
BA4558FT1
IC101
Q101, D101
TPS drive
Q20
Switching (test sig.)
M5238FPTA
IC201
D201,203,205 (D202,204,206)
Level meter amp
Q201(Q202) SWITCHING
Q203(Q204) SWITCHING
M38063M6270F
IC501
MICRO COMPUTER
ENC/DEC
TPS
TEST-SIG
PB-LVL-DA1 (PB-LVL-DA2)
EQ-X2
Vcc
SIGNAL-L (SIGNAL-R)
R/P-ADJUST
AT PB
400LPF
AIC-CLK
AIC-DATA
BIAS
TAPE-IN1
EMD-SW1
EM1-CLOSE
EM1-OPEN
MODE1
HALF1
ATS-NOR1
RLP1
SOL1
MOTOR1
SPEED2
SPEED1
BUS-CLK-O
BUS-CLK-I
BUS-DATA-O
BUS-DATA-I
RESET
DOLBY-B
DOLBY-C
LMT
FLD-LS
FLD-CL
FLD-DATA
FLD-CLK
EEPR-CS
EEPR-SK
EEPR-DATA
XOUT
XIN
X501
CNVss
AC IN
KEY2
KEY1
S901～907,910～920
Key matrix
TAPE-IN2
EMD-SW2
EM2-CLOSE
EM2-OPEN
MODE2
HALF2
R-REC INH2
F-REC INH2
ATS-NOR2
ATS-MTL2
RLP2
SOL2
MOTOR2
Q11(Q12)
D5 (D4)
Q9,10
Muting control
JK1(1/3)
LINE OUT L ch
FL1
FL DISPLAY
From POWER TRANSFORMER
MSC1164GS-VK
IC901
FL DRIVE
LE93CS47M6TL
IC502
EEPROM
DECK 1
S702 (CLOSE/CASSETTE HOLDER)
DQ701
Cassette insert det.
S701(CLOSE DET.)
BA6218
IC701
EJECT MOTOR DRIVE
EJECT MOTOR
Control logic
Q701,702, D701
Regulator/power supply control
S951(MODE)
S952(HALF)
S953(ATS/CrO2)
DN6851ALB
IC951
HALL IC
Q501,502
Solenoid drive
SOLENOID
D951
Q503
Motor control
VR501 (SPEED ADJ.)
Q504
Motor speed control
MOTOR
Q505
D507
D506
DECK 2
S702 (CLOSE/CASSETTE HOLDER)
DQ701A
S701A(CLOSE DET.)
BA6218
IC701A
EJECT MOTOR DRIVE
Q701A,702A, D701A
Regulator/power supply control
D511
D512
S971(MODE)
S972 (HALF)
S973(R.REC.INH)
S974(F.REC.INH)
S975(ATS/CrO2)
S976(ATS/METAL)
DN6851ALB
IC971
HALL IC
Q507,508
Solenoid drive
D971
SOLENOID
Q509
Motor control
VR502,503 (SPEED ADJ.)
Q506
Motor speed control
MOTOR
Notes:
1) ( ) indicates pin No. of right channel.
2)
PLAYBACK SIGNAL LINE
RECORDING SIGNAL LINE
Q601, D610
Regulator
Q602,D612
Regulator
Q604,605,D611
Regulator
D605,606
D607,608
D603,604
D601,602
Q603,D613
Regulator
D615
T1
Stabilzer
Q606, Q607
To FL DISPLAY
AC IN
AC IN
A
B
C
D
E

lue

Wire

■ FUNCTION OF IC TERMINALS

•IC501 (M38063M6270F)

Pin No.	Terminal Name	I/O	Function
1	KEY2	I	DECK2 operation key signal
2	KEY1	I	DECK1 operation key signal
3	TAPE-IN1	I	EJECT key and Tape Sense signal for DECK1
4	DOLBY-B	O	Dolby B on/off signal ("L"=ON)
5	DOLBY-C	O	Dolby C on/off signal ("H"=ON)
6	FLD-CLK	O	FL display driver clock
7	FLD-DATA	O	FL display data to driver
8	FLD-CL	O	FL display driver clear signal
9	FLD-LS	O	FL display driver latch signal
10	AIC-CLK	O	Rec./play audio IC clock
11	AIC-DATA	O	Audio data for rec./play audio IC
12	PB-LVL (DA2)	O	R channel playback level control signal
13	PB-LVL (DA1)	O	L channel playback level control signal
14	TEST-SIG	O	Test tone signal (400 Hz/10 kHz)
15	EQ-×2	O	Rec. amplifier equalization (×1/×2) selection signal ("H"=×2)
16	EQ-NORMAL	O	Rec. equalizer compensation signal for normal bias tapes ("H"=normal)
17	400LPF	O	400-Hz test tone filter in/out control
18	TPS	I	Program exist sense signal used during TPS operation ("L"=present)
19	LMT	O	Line out muting signal (active Low)
20	BIAS	O	Rec. bias on/off control ("H"=ON)
21	PB-×1/×2	O	Normal/double speed selection ("L"=double speed) Not used
22	EEPR-CS	O	EEPROM chip select signal
23	EEPR-SK	O	EEPROM clock
24	EEPR-DATA	I/O	EEPROM data I/O
25	AC IN	I	Power off sense signal
26	CNV_{SS}	GND	Pulled down to V_{SS}.
27	RESET	I	Microprocessor reset signal (active Low)
28	———	—	Not used
29	———	—	Not used
30	X IN	I	Microprocessor clock input
31	X OUT	O	Microprocessor clock output
32	V_{SS}	GND	GND
33	BUS-DATA-O	O	Bus signal inputs/outputs
34	BUS-CLK-O	O	
35	BUS-DATA-I	I	
36	BUS-CLK-I	I	
37	PB-35μs	—	Not used
38	PB-70μs	—	Not used
39	LATCH1	—	Not used
40	LATCH2	—	Not used
41	TEST-EPROM	I	EEPROM initialization signal (active Low)
42	PB-1/2	—	Not used
43	———	—	Not used
44	———	—	Not used
45	EM1-CLOSE	O	DECK1 eject motor (close) control (active High)
46	EM1-OPEN	O	DECK1 eject motor (open) control (active High)
47	EMD-SW1	I	DECK1 eject mode switch signal (active Low)
48	———	—	Not used
49	TEST-MODE	I	Test mode on/off control ("L"=ON)
50	ATS-NOR1	I	DECK1 tape position (NORMAL) sense switch signal (active Low)
51	HALF1	I	DECK1 tape sense switch signal (active Low)
52	MODE1	I	DECK1 mechanism mode switch signal (active Low)
53	RLP1	I	DECK1 reel rotation sense pulse
54	SOL1	O	DECK1 plunger on/off signal ("H"=ON)
55	MOTOR1	O	DECK motor on/off control ("H"=ON)
56	SPEED1	O	DECK1 motor speed control ("H"=×1)
57	SPEED2	O	DECK2 motor speed control ("H"=×1)
58	SOL2	O	DECK2 plunger on/off signal ("H"=ON)
59	MOTOR2	O	DECK2 motor on/off control ("H"=ON)
60	RLP2	I	DECK2 reel rotation sense pulse
61	MODE2	I	DECK2 mechanism mode switch signal (active Low)
62	HALF2	I	DECK2 tape sense switch signal (active Low)
63	R-RECINH2	I	DECK2 erasure prevention switch signal for reverse side (active Low)
64	ATS-NOR2	I	DECK2 tape position (NORMAL) sense switch signal (active Low)
65	F-RECINH2	I	DECK2 erasure prevention switch signal for forward side (active Low)
66	ATS-MTL2	I	DECK2 tape position (METAL) sense switch signal (active Low)
67	———	—	Not used
68	———	—	Not used
69	ATPB	O	Switching signal for playback level adjustment (active High)
70	EM2-CLOSE	O	DECK2 eject motor (close) control (active High)
71	EM2-OPEN	O	DECK2 eject motor (open) control (active High)
72	EMD-SW2	I	DECK2 eject mode switch signal (active Low)
73	V_{CC}	I	Microprocessor power supply (+5 V)
74	V REF	I	Reference voltage for A/D converter (+5 V)
75	AV_{SS}	—	GND for A/D input
76	TAPE-IN2	I	DECK2 EJECT key and tape sense signal
77	R/P-ADJUST	O	Adjustment mode (including CCRT) selection signal (active High)
78	SIGNAL-R	I	Not used (pulled down to V_{SS} through resistor)
79	SIGNAL-L	I	Not used (pulled down to V_{SS} through resistor)
80	ENC/DEC	O	Dolby IC encoding/decoding select signal ("H"=encoding)

•IC901 (MSC1164GS-VK)

Pin No.	Terminal Name	I/O	Function
1	NC	—	———
2	NC	—	———
3	DOUT	—	———
4	LS	I	Latch strobe
5	$\overline{CL}$	I	Clear input with internal pull-up resistor
6	V_{DD}	—	Logic power supply
7 ~ 14	P1 ~ P8	O	FL display drive lines
15	G6	O	FL display grid drive line
16	G5		
17 ~ 22	P14 ~ P9	O	FL display drive lines
23 ~ 26	G1 ~ G4	O	FL display grid drive lines
27	VH	—	FL driver power supply
28	GND	—	GND
29	CLK	I	Clock input
30	DATA	I	Data input
31	CHG	I	Test input (not used)
32	NC	—	———

■ REPL

Notes: *Import
Comp
Furthe
When
*The pa
Parts w

Ref. No.	
IC1	M52
IC2	AN6
IC101	SVI
IC201	SVI
IC301	UPC
IC401	CXA
IC501	M38
IC502	LE9
IC503	LA5
IC701	BA6
IC701A	BA6
IC901	MSC
IC951	DN6
IC971	DN6
Q1, 2	2SJ
Q3, 4	2SK
Q5, 6	2SC
Q9	DTC
Q10	DTA
Q11, 12	2SK
Q13, 14	2SJ
Q15, 16	2SD
Q17, 18	2SK
Q19	2SC
Q20	DTC
Q101	2SC
Q201-204	DTC
Q301, 302	2SC
Q303	2SB
Q304	2SD
Q305	2SB
Q309	DTC
Q312	2SC
Q401-403	DTA
Q404, 405	DTC
Q501	2SB
Q502	UN4
Q503	2SD
Q504	2SA
Q505	UN4
Q506	2SA

t

al

control

control

signal

L"=ON)

RMAL)
Low)

signal

switch

pulse

al

("H"=ON)

ol

ol

Pin No.	Terminal Name	I/O	Function
58	SOL2	O	DECK2 plunger on/off signal ("H"=ON)
59	MOTOR2	O	DECK2 motor on/off control ("H"=ON)
60	RLP2	I	DECK2 reel rotation sense pulse
61	MODE2	I	DECK2 mechanism mode switch signal (active Low)
62	HALF2	I	DECK2 tape sense switch signal (active Low)
63	R-RECINH2	I	DECK2 erasure prevention switch signal for reverse side (active Low)
64	ATS-NOR2	I	DECK2 tape position (NORMAL) sense switch signal (active Low)
65	F-RECINH2	I	DECK2 erasure prevention switch signal for forward side (active Low)
66	ATS-MTL2	I	DECK2 tape position (METAL) sense switch signal (active Low)
67	———	—	Not used
68	———	—	Not used
69	ATPB	O	Switching signal for playback level adjustment (active High)
70	EM2-CLOSE	O	DECK2 eject motor (close) control (active High)
71	EM2-OPEN	O	DECK2 eject motor (open) control (active High)
72	EMD-SW2	I	DECK2 eject mode switch signal (active Low)
73	V_{CC}	I	Microprocessor power supply (+5 V)
74	V REF	I	Reference voltage for A/D converter (+5 V)
75	AV_{SS}	—	GND for A/D input
76	TAPE-IN2	I	DECK2 EJECT key and tape sense signal
77	R/P-ADJUST	O	Adjustment mode (including CCRT) selection signal (active High)
78	SIGNAL-R	I	Not used (pulled down to V_{SS} through resistor)
79	SIGNAL-L	I	Not used (pulled down to V_{SS} through resistor)
80	ENC/DEC	O	Dolby IC encoding/decoding select signal ("H"=encoding)

•IC901 (MSC1164GS-VK)

Pin No.	Terminal Name	I/O	Function
1	NC	—	———
2	NC	—	———
3	DOUT	—	———
4	LS	I	Latch strobe
5	$\overline{CL}$	I	Clear input with internal pull-up resistor
6	V_{DD}	—	Logic power supply
7 ≀ 14	P1 ≀ P8	O	FL display drive lines
15	G6	O	FL display grid drive line
16	G5		
17 ≀ 22	P14 ≀ P9	O	FL display drive lines
23 ≀ 26	G1 ≀ G4	O	FL display grid drive lines
27	VH	—	FL driver power supply
28	GND	—	GND
29	CLK	I	Clock input
30	DATA	I	Data input
31	CHG	I	Test input (not used)
32	NC	—	———

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	M52122FPE1	I. C, PLAYBACK/REC. AMP.	
IC2	AN6558SFE2	I. C, BUFFER AMP.	
IC101	SVIBA4558F	I. C, TPS DRIVE	
IC201	SVIM5238FP	I. C, LEVEL METER AMP.	
IC301	UPC1297CA	I. C, DOLBY HX PRO.	
IC401	CXA1331M-T6	I. C, DOLBY NR B/C	
IC501	M38063M6270F	I. C, MICRO COMPUTER	
IC502	LE93CS47M6TL	I. C, EEPROM	
IC503	LA5608M-TE-L	I. C, BUS LINE DRIVE/RESET	
IC701	BA6218	I. C, E. MOTOR DRIVE(DECK1)	
IC701A	BA6218	I. C, E. MOTOR DRIVE(DECK2)	
IC901	MSC1164GS-VK	I. C, FL DRIVE	
IC951	DN6851ALB	I. C, HALL(DECK1)	
IC971	DN6851ALB	I. C, HALL(DECK2)	
		TRANSISTOR(S)	
Q1, 2	2SJ164PQRTA	TRANSISTOR	
Q3, 4	2SK381BCDTA	TRANSISTOR	
Q5, 6	2SC3311A-Q	TRANSISTOR	
Q9	DTC114ESTP	TRANSISTOR	
Q10	DTA114ESTP	TRANSISTOR	
Q11, 12	2SK381BCDTA	TRANSISTOR	
Q13, 14	2SJ164PQRTA	TRANSISTOR	
Q15, 16	2SD2144S	TRANSISTOR	
Q17, 18	2SK381BCDTA	TRANSISTOR	
Q19	2SC3311A-Q	TRANSISTOR	
Q20	DTC114ESTP	TRANSISTOR	
Q101	2SC3311A-Q	TRANSISTOR	
Q201-204	DTC114ESTP	TRANSISTOR	
Q301, 302	2SC3311ARSTA	TRANSISTOR	
Q303	2SB621AQSTA	TRANSISTOR	
Q304	2SD1862QRTV6	TRANSISTOR	
Q305	2SB621AQSTA	TRANSISTOR	
Q309	DTC114ESTP	TRANSISTOR	
Q312	2SC3311A-Q	TRANSISTOR	
Q401-403	DTA114ESTP	TRANSISTOR	
Q404, 405	DTC114ESTP	TRANSISTOR	
Q501	2SB621AQSTA	TRANSISTOR	
Q502	UN4222	TRANSISTOR	
Q503	2SD1302STTA	TRANSISTOR	
Q504	2SA1309A-R	TRANSISTOR	
Q505	UN4222	TRANSISTOR	
Q506	2SA1309A-R	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q507	2SB621AQSTA	TRANSISTOR	
Q508	UN4222	TRANSISTOR	
Q509	2SD1302STTA	TRANSISTOR	
Q601, 602	2SD2037DEFTA	TRANSISTOR	
Q603	2SC3311A-Q	TRANSISTOR	
Q604, 605	2SB1357DEFTA	TRANSISTOR	
Q606, 607	2SC3311A-Q	TRANSISTOR	
Q701	2SD1862QRTV6	TRANSISTOR	
Q701A	2SD1862QRTV6	TRANSISTOR	
Q702	2SC3311ARSTA	TRANSISTOR	
Q702A	2SC3311ARSTA	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	
D3	MA165	DIODE	
D4, 5	MA167	DIODE	
D6	MA165	DIODE	
D101	MA165	DIODE	
D201-204	MA165	DIODE	
D302-304	MA165	DIODE	
D305	MTZJ6R8CTA	DIODE	
D307	MA165	DIODE	
D310	MA167	DIODE	
D311	MTZJ10CTA	DIODE	
D401	MA165	DIODE	
D501-507	MA165	DIODE	
D508	MTZJ5R1BTA	DIODE	
D509, 510	MA165	DIODE	
D511, 512	MA700TA	DIODE	
D513	MA165	DIODE	
D601, 602	MA165	DIODE	⚠
D603-608	1SR35200TB	DIODE	⚠
D609	MA719TA	DIODE	
D610, 611	MTZJ8R2CTA	DIODE	
D612	MTZJ6R2CTA	DIODE	
D613	MTZJ30BTA	DIODE	
D614	MA719TA	DIODE	
D615	1SR35200TB	DIODE	⚠
D616	MA700TA	DIODE	
D701	MTZJ9R1CTA	DIODE	
D701A	MTZJ9R1CTA	DIODE	
D703	MA165	DIODE	
D703A	MA165	DIODE	
D901	MTZJ5R6BTA	DIODE	⚠
D951	RVD1SS133TA	DIODE	
D971	RVD1SS133TA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)	
VR501	EVNDXAA00B53	V. R, TAPE SPEED ADJ. (DECK1)	
VR502	EVNDXAA00B53	V. R, TAPE SPEED ADJ. (DECK2)	
VR503	EVNDXAA00B53	V. R, TAPE SPEED ADJ. (DECK2)	
		COIL(S)	
L1, 2	SLQX303-1KT	COIL	
L301	SL09B4-K	COIL	
L302, 303	SL09B1-Z	COIL	
L401-404	SLQX303-1KT	COIL	
		TRANSFORMER(S)	
T1	RTP1I4G003	POWER TRANSFORMER	⚠
		OSCILLATOR(S)	
X501	RSXY5M00M01T	OSCILLATOR(5MHz)	
		DISPLAY(S)	
FL1	RSL0136-F	FL DISPLAY	⚠
		SWITCH(ES)	
S701	RSH1A005	SW, OPEN/CLOSE DET. (DECK1)	
S701A	RSH1A005	SW, OPEN/CLOSE DET. (DECK2)	
S702	EVQ21405R	SW, CLOSE(C. HOLDER DECK1)	
S702A	EVQ21405R	SW, CLOSE(C. HOLDER DECK2)	
S901	EVQ21405R	SW, STOP/OPEN(DECK1)	
S902	EVQ21405R	SW, F. F. TPS(DECK1)	
S903	EVQ21405R	SW, REW. TPS(DECK1)	
S904	EVQ21405R	SW, PLAY(FWD) (DECK1)	
S905	EVQ21405R	SW, PLAY(REV) (DECK1)	
S906	EVQ21405R	SW, DOLBY NR	
S907	EVQ21405R	SW, COUNTER RESET(DECK1)	
S910	EVQ21405R	SW, STOP/OPEN(DECK2)	
S911	EVQ21405R	SW, F. F. TPS(DECK2)	
S912	EVQ21405R	SW, REW, TPS(DECK2)	
S913	EVQ21405R	SW, PLAY(FWD) (DECK2)	
S914	EVQ21405R	SW, PLAY(REV) (DECK2)	
S915	EVQ21405R	SW, REC PAUSE(DECK2)	
S916	EVQ21405R	SW, NORMAL	
S917	EVQ21405R	SW, HIGH	
S918	EVQ21405R	SW, CCRT	
S919	EVQ21405R	SW, REV MODE	
S920	EVQ21405R	SW, COUNTER RESET(DECK2)	
S951	RSH1A89ZC-U	SW, MODE(DECK1)	
S952	RSH1A90YC-U	SW, HALF(DECK1)	

Ref. No.	Part No.	Part Name & Description	Remarks
S953	RSH1A90YC-U	SW, ATS/Cr02(DECK1)	
S971	RSH1A89ZC-U	SW, MODE(DECK2)	
S972	RSH1A90YC-U	SW, HALF(DECK2)	
S973	RSH1A90YC-U	SW, R. REC. INH(DECK2)	
S974	RSH1A90YC-U	SW, F. REC. INH(DECK2)	
S975	RSH1A90YC-U	SW, ATS/Cr02(DECK2)	
S976	RSH1A90YC-U	SW, ATS/METAL(DECK2)	
		CONNECTOR(S)	
J951	RJS7T7ZA	SOCKET(7P)	
J971	RJS10T7ZA	SOCKET(10P)	
CN1	RJS7T4ZA	SOCKET(7P)	
CN2	RJS1A6604	SOCKET(4P)	
CN3	SJSD1005	SOCKET(10P)	
CN4	RJS1A6604	SOCKET(4P)	
CN5A	RJS15Q8ZA	SOCKET(15P)	
CN6A	RJS1A6603	SOCKET(3P)	
CN7A	RJS1A6603	SOCKET(3P)	
CN8A	RJP3G17ZA	CONNECTOR(3P)	
CN8AA	RJP3G17ZA	CONNECTOR(3P)	
CN5B	RJS1A6715-Q	SOCKET(15P)	
CN6B	RJS1A6604	SOCKET(4P)	
CN7B	RJS1A6604	SOCKET(4P)	
CN8B	REX0466-2	LEAD CABLE(3P)	
CN8BA	REX0466-2	LEAD CABLE(3P)	
CP1	SJTD413	CONNECTOR(4P)	
CP2	RJP5G18ZA	CONNECTOR(5P)	
		PHOTO SENSOR	
DQ701	SVDGP1S53	CASSETTE IN DET. (DECK1)	
DQ701A	SVDGP1S53	CASSETTE IN DET. (DECK2)	
		EARTH TERMINAL(S)	
E1, 2	SNE1004-1	GND PLATE	
		JACK(S)	
JK1	RJT065K15	CONNECTOR(15P)	
		FLAT CABLE(S)	
W7	REZ0530-1	FLAT CABLE(7P)	
W7A	REZ0530-1	FLAT CABLE(7P)	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ225	1/4W 2.2M
R3, 4	ERDS2TJ104	1/4W 100K
R5	ERDS2TJ471	1/4W 470
R6	ERDS2TJ220T	1/4W 22
R7, 8	ERDS2TJ684	1/4W 680K
R11	ERDS2TJ475T	1/4W 4.7M
R12	ERDS2TJ220T	1/4W 22
R13, 14	ERDS2TJ473	1/4W 47K
R15, 16	ERDS2TJ223	1/4W 22K
R17, 18	ERDS2TJ222	1/4W 2.2K
R19-22	ERDS2TJ271	1/4W 270
R23, 24	ERDS2TJ123	1/4W 12K
R27, 28	ERDS2TJ472	1/4W 4.7K
R29, 30	ERDS2TJ123	1/4W 12K
R31	ERDS2TJ104	1/4W 100K
R32	ERDS2TJ473	1/4W 47K
R33, 34	ERDS2TJ104	1/4W 100K
R35, 36	ERDS2TJ473	1/4W 47K
R37, 38	ERDS2TJ104	1/4W 100K
R39, 40	ERDS2TJ394	1/4W 390K
R41, 42	ERDS2TJ224T	1/4W 220K
R58	ERDS2TJ473	1/4W 47K
R59, 60	ERDS2TJ100	1/4W 10
R61, 62	ERDS2TJ225	1/4W 2.2M
R63, 64	ERDS2TJ224T	1/4W 220K
R65, 66	ERDS2TJ820	1/4W 82
R67, 68	ERDS2TJ225	1/4W 2.2M
R69, 71	ERDS2TJ183T	1/4W 18K
R70	ERDS2TJ472	1/4W 4.7K
R72, 79	ERDS2TJ472	1/4W 4.7K
R73, 74	ERDS2TJ104	1/4W 100K
R76	ERDS2TJ331	1/4W 330
R77, 78	ERDS2TJ682T	1/4W 6.8K
R81, 82	ERDS2TJ471	1/4W 470
R83, 84	ERDS2TJ151	1/4W 150
R85, 86	ERDS2TJ104	1/4W 100K
R87	ERDS2TJ331	1/4W 330
R88	ERDS2TJ223	1/4W 22K
R101, 102	ERDS2TJ104	1/4W 100K
R103	ERDS2TJ331	1/4W 330
R104, 105	ERDS2TJ823T	1/4W 82K
R106	ERDS2TJ562	1/4W 5.6K
R108	ERDS2TJ473	1/4W 47K
R109	ERDS2TJ123	1/4W 12K
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ393	1/4W 39K
R201-204	ERDS2TJ124T	1/4W 120K

Ref. No.	Part No.	Values & Remarks
R205, 206	ERDS2TJ474	1/4W 470K
R207, 208	ERDS2TJ220T	1/4W 22
R209, 210	ERDS2TJ822	1/4W 8.2K
R211, 212	ERDS2TJ223	1/4W 22K
R213, 214	ERDS2TJ273	1/4W 27K
R301	ERDS2TJ1R0	1/4W 1.0
R311, 312	ERDS2TJ101	1/4W 100
R313, 314	ERDS2TJ154	1/4W 150K
R315, 316	ERDS2TJ153	1/4W 15K
R317	ERDS2TJ472	1/4W 4.7K
R318	ERDS2TJ102	1/4W 1K
R327	ERDS2TJ151	1/4W 150
R328	ERDS2TJ391	1/4W 390
R334	ERDS2TJ122	1/4W 1.2K
R340	ERD2FCVG270T	1/4W 27 ⚠
R341	ERDS2TJ473	1/4W 47K
R342	ERDS2TJ102	1/4W 1K
R343	ERDS2TJ471	1/4W 470
R344	ERDS2TJ222	1/4W 2.2K
R345, 346	ERDS2TJ100	1/4W 10
R347, 348	ERDS2TJ183T	1/4W 18K
R349	ERDS2TJ103	1/4W 10K
R350	ERDS2TJ683	1/4W 68K
R351	ERDS2TJ562	1/4W 5.6K
R353	ERDS2TJ332	1/4W 3.3K
R354	ERDS2TJ333	1/4W 33K
R355	ERDS2TJ272T	1/4W 2.7K
R356	ERDS2TJ103	1/4W 10K
R401, 402	ERDS2TJ272T	1/4W 2.7K
R403, 404	ERDS2TJ562	1/4W 5.6K
R405, 406	ERDS2TJ243T	1/4W 24K
R407, 408	ERDS2TJ561	1/4W 560
R409	ERDS2TJ151	1/4W 150
R410	ERDS2TJ273	1/4W 27K
R411, 412	ERDS2TJ221	1/4W 220
R413-416	ERDS2TJ560T	1/4W 56
R417, 418	ERDS2TJ103	1/4W 10K
R419	ERDS2TJ822	1/4W 8.2K
R420, 421	ERDS2TJ103	1/4W 10K
R501, 502	ERDS2TJ103	1/4W 10K
R503, 504	ERDS2TJ473	1/4W 47K
R507	ERDS2TJ103	1/4W 10K
R513, 514	ERDS2TJ103	1/4W 10K
R515	ERDS2TJ473	1/4W 47K
R517	ERDS2TJ103	1/4W 10K
R519-525	ERDS2TJ472	1/4W 4.7K
R526	ERDS2TJ103	1/4W 10K
R527	ERDS2TJ473	1/4W 47K
R528	ERDS2TJ472	1/4W 4.7K

Ref. No.	Part No.	Values & Remarks
R529	ERDS2TJ100	1/4W 10
R530	ERDS2TJ223	1/4W 22K
R531, 532	ERDS2TJ821	1/4W 820
R533	ERDS2TJ222	1/4W 2.2K
R534	ERDS2TJ2R7T	1/4W 2.7
R535	ERDS2TJ153	1/4W 15K
R536	ERDS2TJ103	1/4W 10K
R537	ERDS2TJ392T	1/4W 3.9K
R538	ERDS2TJ184T	1/4W 180K
R539	ERDS2TJ103	1/4W 10K
R540	ERDS2TJ821	1/4W 820
R541	ERDS2TJ222	1/4W 2.2K
R542	ERDS2TJ2R7T	1/4W 2.7
R543	ERDS2TJ184T	1/4W 180K
R544	ERDS2TJ123	1/4W 12K
R545	ERDS2TJ103	1/4W 10K
R546	ERDS2TJ392T	1/4W 3.9K
R547	ERDS2TJ223	1/4W 22K
R548	ERDS2TJ821	1/4W 820
R549, 550	ERDS2TJ472	1/4W 4.7K
R551	ERDS2TJ104	1/4W 100K
R552	ERDS2TJ473	1/4W 47K
R553	ERDS2TJ103	1/4W 10K
R555, 556	ERDS2TJ103	1/4W 10K
R559-561	ERDS2TJ104	1/4W 100K
R562, 564	ERDS2TJ103	1/4W 10K
R566, 567	ERDS2TJ103	1/4W 10K
R568	ERDS2TJ473	1/4W 47K
R569	ERDS2TJ470	1/4W 47
R570	ERDS2TJ331	1/4W 330
R571	ERDS2TJ102	1/4W 1K
R572, 573	ERDS2TJ331	1/4W 330
R574-577	ERDS2TJ472	1/4W 4.7K
R578	ERDS2TJ332	1/4W 3.3K
R601, 602	ERDS2TJ472	1/4W 4.7K
R603	ERDS2TJ102	1/4W 1K
R604	ERDS2TJ561	1/4W 560
R605, 606	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R607	ERD2FCVG150T	1/4W 15 ⚠
R608	ERDS1FVJ100T	1/2W 10 ⚠
R609	ERDS2TJ100	1/4W 10
R610	ERDS2TJ102	1/4W 1K
R611, 612	ERDS2TJ4R7T	1/4W 4.7
R613, 614	ERDS2TJ222	1/4W 2.2K
R615	ERDS2TJ333	1/4W 33K
R616	ERDS2TJ104	1/4W 100K
R701	ERDS2TJ1R5T	1/4W 1.5
R701A	ERDS2TJ1R5T	1/4W 1.5
R702	ERDS2TJ1R5T	1/4W 1.5

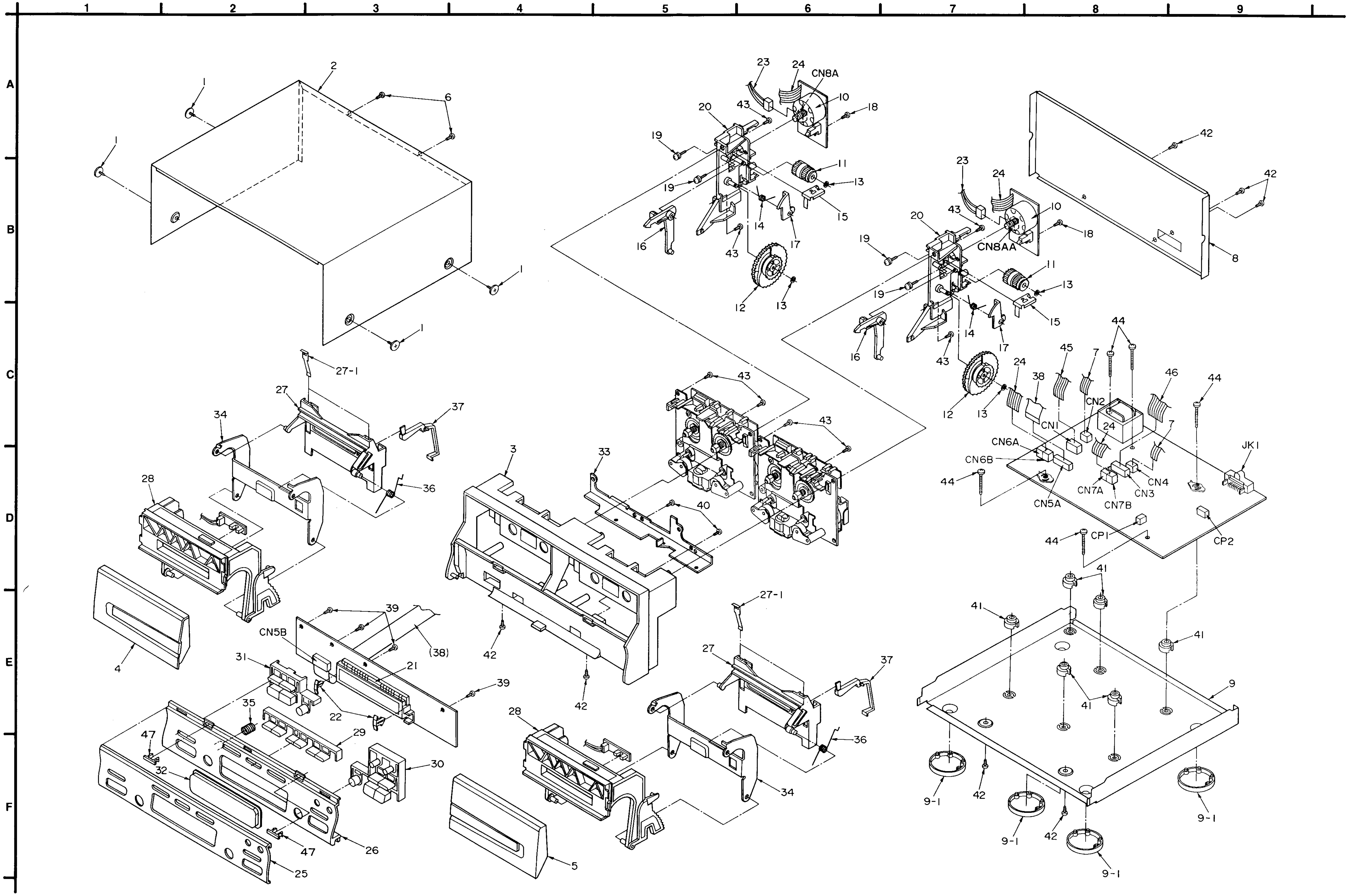
Ref. No
R702A
R703
R703A
R704
R704A
R705
R705A
R706
R706A
R707
R707A
R709
R709A
R711
R711A
R712
R712A
R716
R716A
R717
R717A
R904, 90
R906-90
R909
R910
R911
R912
R913
R914
R917
R918
R919
R920
R921
R922
R923
R924
R925
R926
R927
R933
R934, 93
C3, 4
C7
C8
C9
C10
C11, 12
C17
C19, 20

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

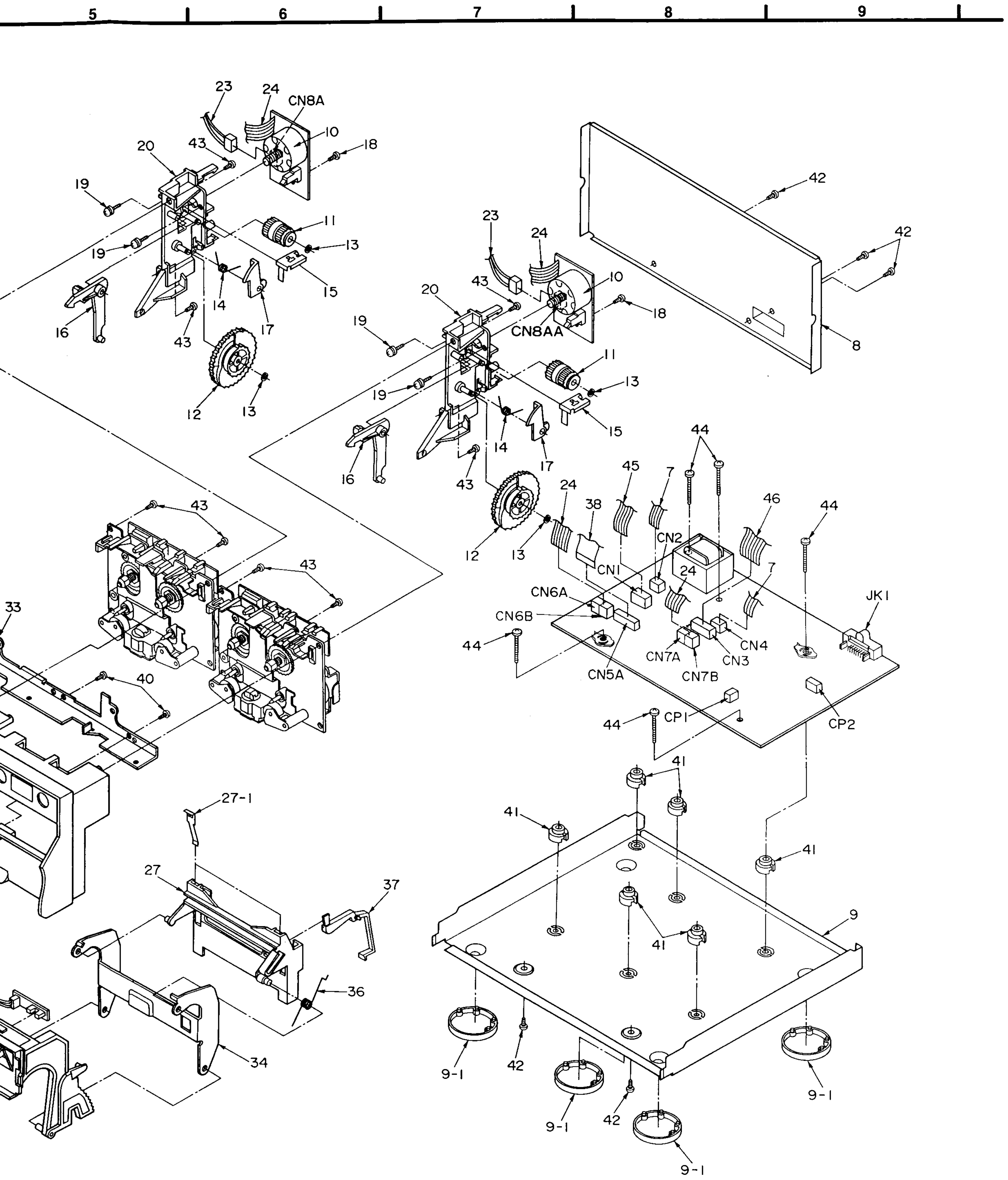
Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ225	1/4W 2.2M
R3, 4	ERDS2TJ104	1/4W 100K
R5	ERDS2TJ471	1/4W 470
R6	ERDS2TJ220T	1/4W 22
R7, 8	ERDS2TJ684	1/4W 680K
R11	ERDS2TJ475T	1/4W 4.7M
R12	ERDS2TJ220T	1/4W 22
R13, 14	ERDS2TJ473	1/4W 47K
R15, 16	ERDS2TJ223	1/4W 22K
R17, 18	ERDS2TJ222	1/4W 2.2K
R19-22	ERDS2TJ271	1/4W 270
R23, 24	ERDS2TJ123	1/4W 12K
R27, 28	ERDS2TJ472	1/4W 4.7K
R29, 30	ERDS2TJ123	1/4W 12K
R31	ERDS2TJ104	1/4W 100K
R32	ERDS2TJ473	1/4W 47K
R33, 34	ERDS2TJ104	1/4W 100K
R35, 36	ERDS2TJ473	1/4W 47K
R37, 38	ERDS2TJ104	1/4W 100K
R39, 40	ERDS2TJ394	1/4W 390K
R41, 42	ERDS2TJ224T	1/4W 220K
R58	ERDS2TJ473	1/4W 47K
R59, 60	ERDS2TJ100	1/4W 10
R61, 62	ERDS2TJ225	1/4W 2.2M
R63, 64	ERDS2TJ224T	1/4W 220K
R65, 66	ERDS2TJ820	1/4W 82
R67, 68	ERDS2TJ225	1/4W 2.2M
R69, 71	ERDS2TJ183T	1/4W 18K
R70	ERDS2TJ472	1/4W 4.7K
R72, 79	ERDS2TJ472	1/4W 4.7K
R73, 74	ERDS2TJ104	1/4W 100K
R76	ERDS2TJ331	1/4W 330
R77, 78	ERDS2TJ682T	1/4W 6.8K
R81, 82	ERDS2TJ471	1/4W 470
R83, 84	ERDS2TJ151	1/4W 150
R85, 86	ERDS2TJ104	1/4W 100K
R87	ERDS2TJ331	1/4W 330
R88	ERDS2TJ223	1/4W 22K
R101, 102	ERDS2TJ104	1/4W 100K
R103	ERDS2TJ331	1/4W 330
R104, 105	ERDS2TJ823T	1/4W 82K
R106	ERDS2TJ562	1/4W 5.6K
R108	ERDS2TJ473	1/4W 47K
R109	ERDS2TJ123	1/4W 12K
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ393	1/4W 39K
R201-204	ERDS2TJ124T	1/4W 120K
R205, 206	ERDS2TJ474	1/4W 470K
R207, 208	ERDS2TJ220T	1/4W 22
R209, 210	ERDS2TJ822	1/4W 8.2K
R211, 212	ERDS2TJ223	1/4W 22K
R213, 214	ERDS2TJ273	1/4W 27K
R301	ERDS2TJ1R0	1/4W 1.0
R311, 312	ERDS2TJ101	1/4W 100
R313, 314	ERDS2TJ154	1/4W 150K
R315, 316	ERDS2TJ153	1/4W 15K
R317	ERDS2TJ472	1/4W 4.7K
R318	ERDS2TJ102	1/4W 1K
R327	ERDS2TJ151	1/4W 150
R328	ERDS2TJ391	1/4W 390
R334	ERDS2TJ122	1/4W 1.2K
R340	ERD2FCVG270T	1/4W 27 ⚠
R341	ERDS2TJ473	1/4W 47K
R342	ERDS2TJ102	1/4W 1K
R343	ERDS2TJ471	1/4W 470
R344	ERDS2TJ222	1/4W 2.2K
R345, 346	ERDS2TJ100	1/4W 10
R347, 348	ERDS2TJ183T	1/4W 18K
R349	ERDS2TJ103	1/4W 10K
R350	ERDS2TJ683	1/4W 68K
R351	ERDS2TJ562	1/4W 5.6K
R353	ERDS2TJ332	1/4W 3.3K
R354	ERDS2TJ333	1/4W 33K
R355	ERDS2TJ272T	1/4W 2.7K
R356	ERDS2TJ103	1/4W 10K
R401, 402	ERDS2TJ272T	1/4W 2.7K
R403, 404	ERDS2TJ562	1/4W 5.6K
R405, 406	ERDS2TJ243T	1/4W 24K
R407, 408	ERDS2TJ561	1/4W 560
R409	ERDS2TJ151	1/4W 150
R410	ERDS2TJ273	1/4W 27K
R411, 412	ERDS2TJ221	1/4W 220
R413-416	ERDS2TJ560T	1/4W 56
R417, 418	ERDS2TJ103	1/4W 10K
R419	ERDS2TJ822	1/4W 8.2K
R420, 421	ERDS2TJ103	1/4W 10K
R501, 502	ERDS2TJ103	1/4W 10K
R503, 504	ERDS2TJ473	1/4W 47K
R507	ERDS2TJ103	1/4W 10K
R513, 514	ERDS2TJ103	1/4W 10K
R515	ERDS2TJ473	1/4W 47K
R517	ERDS2TJ103	1/4W 10K
R519-525	ERDS2TJ472	1/4W 4.7K
R526	ERDS2TJ103	1/4W 10K
R527	ERDS2TJ473	1/4W 47K
R528	ERDS2TJ472	1/4W 4.7K
R529	ERDS2TJ100	1/4W 10
R530	ERDS2TJ223	1/4W 22K
R531, 532	ERDS2TJ821	1/4W 820
R533	ERDS2TJ222	1/4W 2.2K
R534	ERDS2TJ2R7T	1/4W 2.7
R535	ERDS2TJ153	1/4W 15K
R536	ERDS2TJ103	1/4W 10K
R537	ERDS2TJ392T	1/4W 3.9K
R538	ERDS2TJ184T	1/4W 180K
R539	ERDS2TJ103	1/4W 10K
R540	ERDS2TJ821	1/4W 820
R541	ERDS2TJ222	1/4W 2.2K
R542	ERDS2TJ2R7T	1/4W 2.7
R543	ERDS2TJ184T	1/4W 180K
R544	ERDS2TJ123	1/4W 12K
R545	ERDS2TJ103	1/4W 10K
R546	ERDS2TJ392T	1/4W 3.9K
R547	ERDS2TJ223	1/4W 22K
R548	ERDS2TJ821	1/4W 820
R549, 550	ERDS2TJ472	1/4W 4.7K
R551	ERDS2TJ104	1/4W 100K
R552	ERDS2TJ473	1/4W 47K
R553	ERDS2TJ103	1/4W 10K
R555, 556	ERDS2TJ103	1/4W 10K
R559-561	ERDS2TJ104	1/4W 100K
R562, 564	ERDS2TJ103	1/4W 10K
R566, 567	ERDS2TJ103	1/4W 10K
R568	ERDS2TJ473	1/4W 47K
R569	ERDS2TJ470	1/4W 47
R570	ERDS2TJ331	1/4W 330
R571	ERDS2TJ102	1/4W 1K
R572, 573	ERDS2TJ331	1/4W 330
R574-577	ERDS2TJ472	1/4W 4.7K
R578	ERDS2TJ332	1/4W 3.3K
R601, 602	ERDS2TJ472	1/4W 4.7K
R603	ERDS2TJ102	1/4W 1K
R604	ERDS2TJ561	1/4W 560
R605, 606	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R607	ERD2FCVG150T	1/4W 15 ⚠
R608	ERDS1FVJ100T	1/2W 10 ⚠
R609	ERDS2TJ100	1/4W 10
R610	ERDS2TJ102	1/4W 1K
R611, 612	ERDS2TJ4R7T	1/4W 4.7
R613, 614	ERDS2TJ222	1/4W 2.2K
R615	ERDS2TJ333	1/4W 33K
R616	ERDS2TJ104	1/4W 100K
R701	ERDS2TJ1R5T	1/4W 1.5
R701A	ERDS2TJ1R5T	1/4W 1.5
R702	ERDS2TJ1R5T	1/4W 1.5

Ref. No.	Part No.	Values & Remarks
R702A	ERDS2TJ1R5T	1/4W 1.5
R703	ERDS2TJ101	1/4W 100
R703A	ERDS2TJ101	1/4W 100
R704	ERDS2TJ102	1/4W 1K
R704A	ERDS2TJ102	1/4W 1K
R705	ERDS2TJ222	1/4W 2.2K
R705A	ERDS2TJ222	1/4W 2.2K
R706	ERDS2TJ332	1/4W 3.3K
R706A	ERDS2TJ332	1/4W 3.3K
R707	ERDS2TJ271	1/4W 270
R707A	ERDS2TJ271	1/4W 270
R709	ERDS2TJ103	1/4W 10K
R709A	ERDS2TJ103	1/4W 10K
R711	ERDS2TJ1R5T	1/4W 1.5
R711A	ERDS2TJ1R5T	1/4W 1.5
R712	ERDS2TJ1R5T	1/4W 1.5
R712A	ERDS2TJ1R5T	1/4W 1.5
R716	ERDS2TJ472	1/4W 4.7K
R716A	ERDS2TJ472	1/4W 4.7K
R717	ERDS2TJ472	1/4W 4.7K
R717A	ERDS2TJ472	1/4W 4.7K
R904, 905	ERDS2TJ181T	1/4W 180 ⚠
R906-908	ERDS2TJ100	1/4W 10 ⚠
R909	ERDS2TJ821	1/4W 820
R910	ERDS2TJ102	1/4W 1K
R911	ERDS2TJ122	1/4W 1.2K
R912	ERDS2TJ152	1/4W 1.5K
R913	ERDS2TJ123	1/4W 12K
R914	ERDS2TJ682T	1/4W 6.8K
R917	ERDS2TJ821	1/4W 820
R918	ERDS2TJ102	1/4W 1K
R919	ERDS2TJ122	1/4W 1.2K
R920	ERDS2TJ152	1/4W 1.5K
R921	ERDS2TJ182	1/4W 1.8K
R922	ERDS2TJ222	1/4W 2.2K
R923	ERDS2TJ332	1/4W 3.3K
R924	ERDS2TJ472	1/4W 4.7K
R925	ERDS2TJ682T	1/4W 6.8K
R926	ERDS2TJ123	1/4W 12K
R927	ERDS2TJ223	1/4W 22K
R933	ERDS2TJ472	1/4W 4.7K
R934, 935	ERDS2TJ103	1/4W 10K
		CAPACITORS
C3, 4	ECBT1H102KB5	50V 1000P
C7	ECEA0JKA101B	6.3V 100U
C8	ECEA1CKA100B	16V 10U
C9	ECEA1HKA0R1B	50V 0.1U
C10	ECEA1HKA0R1B	50V 0.1U
C11, 12	ECEA1AU471	10V 470U
C17	ECEA1CKA100B	16V 10U
C19, 20	ECEA1AKA220B	10V 22U
C21, 22	ECEA1HKA2R2B	50V 2.2U
C23, 24	ECEA1EKA4R7B	25V 4.7U
C25, 26	ECEA0JKA470B	6.3V 47U
C27, 28	ECEA1HKAR22B	50V 0.22U
C29, 30	ECQB1H392JF3	50V 3900P
C31, 32	ECQB1H332JF3	50V 3300P
C33, 34	ECQB1H183JF3	50V 0.018U
C35, 36	ECQB1H103JF3	50V 0.01U
C43, 44	ECEA1HKAR22B	50V 0.22U
C45, 46	ECEA1HKA010B	50V 1U
C47, 48	ECBT1H102KB5	50V 1000P
C49, 50	ECBA1H681KB5	50V 680P
C51, 52	ECKR2H121KB5	500V 120P
C57, 58	ECEA1EKA4R7B	25V 4.7U
C59, 60	ECEA1CKA100B	16V 10U
C61	ECBT1H102KB5	50V 1000P
C62	ECBT1E103ZF	25V 0.01U
C63, 64	ECEA1AKN470B	10V 47U ⚠
C65, 66	ECBT1H150J5	50V 15P
C67, 68	ECBT1H561KB5	50V 560P
C69, 70	ECQB1H822JF3	50V 8200P
C71	ECQB1H393JF3	50V 0.039U
C73, 74	ECEA1CKA100B	16V 10U
C75, 76	ECBT1H151KB5	50V 150P
C77, 78	ECQB1H822JF3	50V 8200P
C79, 80	ECBT1H121KB5	50V 120P
C81, 82	ECBT1H4R7KC5	50V 4.7P
C83	ECEA1CKA100B	16V 10U
C101	ECBA1H681KB5	50V 680P
C102	ECEA1HKA3R3B	50V 3.3U
C103	ECBT1H470J5	50V 47P
C104	ECEA1HKA2R2B	50V 2.2U
C201, 202	ECEA1HKAR22B	50V 0.22U
C203, 204	ECEA1CKA100B	16V 10U
C205, 206	ECQB1H273JF3	50V 0.027U
C207	ECEA1CKA100B	16V 10U
C301	ECQP1153JZ	100V 0.015U
C311, 312	ECBT1H220J5	50V 22P
C313, 314	ECBT1H104ZF5	50V 0.1U
C315, 316	ECKR2H821KB5	500V 820P
C317, 318	ECBT1H121KB5	50V 120P
C319, 320	ECQV1H473JM3	50V 0.047U
C321, 322	ECQB1H223JF3	50V 0.022U
C323, 324	ECQB1H103JF3	50V 0.01U
C325, 326	ECBT1C122KR5	16V 1200P
C327	ECEA1VKA100B	35V 10U
C328, 329	ECBT1H104ZF5	50V 0.1U
C340	ECKR1H472KB5	50V 4700P
C341, 342	ECBT1E103ZF	25V 0.01U
C343	ECEA1AKA221Q	10V 220U
C344	ECKW1H222KB5	50V 2200P
C345	ECKD1H682KB	50V 6800P
C346	ECKW1H222KB5	50V 2200P
C347	ECKR1H392KB5	50V 3900P
C349	ECEA1HKA010B	50V 1U
C351	ECEA1EKA4R7B	25V 4.7U
C352, 353	ECEA1CKA100B	16V 10U
C401, 402	ECBT1H121KB5	50V 120P
C403, 404	ECBT1C152JR5	16V 1500P
C405, 406	ECEA1EKA4R7B	25V 4.7U
C407-410	ECQB1H222JF3	50V 2200P
C411, 412	ECEA1HUR56B	50V 0.56U
C413, 414	ECEA1HKAR33B	50V 0.33U
C417, 418	ECBT1H121KB5	50V 120P
C421, 422	ECEA1AU471	10V 470U
C423	ECEA1CKA100B	16V 10U
C425, 426	ECBT1C152JR5	16V 1500P
C501, 502	ECBT1E103ZF	25V 0.01U
C503	ECEA0JKA101B	6.3V 100U
C504, 505	ECBT1E103ZF	25V 0.01U
C506	ECEA1HKAR33B	50V 0.33U
C507	ECEA1HKAR22B	50V 0.22U
C508	ECBT1E103ZF	25V 0.01U
C509	ECEA0JKA470B	6.3V 47U
C510-513	ECBT1E103ZF	25V 0.01U
C514	ECBT1H101KB5	50V 100P
C601, 602	ECFR1H104ZF	50V 0.1U ⚠
C603	ECEA1EU222B	25V 2200U
C604	ECA1CM222B	16V 2200U
C605	ECA1EM102B	25V 1000U
C606	ECBT1E103ZF	25V 0.01U
C607	ECEA1AKA101B	10V 100U
C608	ECEA1AKA221Q	10V 220U
C609, 610	ECBT1E103ZF	25V 0.01U
C611	ECEA1HKA010B	50V 1U
C612	ECKR2H682PE	500V 6800P ⚠
C614, 615	ECBT1E103ZF	25V 0.01U
C616	ECA1HM470B	50V 47U
C617	ECBT1E103ZF	25V 0.01U
C618	ECEA1CKA100B	16V 10U
C619	ECA1VM101B	35V 100U
C701	ECBT1E103ZF	25V 0.01U
C701A	ECBT1E103ZF	25V 0.01U
C702	ECEA1CKN100B	16V 10U ⚠
C702A	ECEA1CKN100B	16V 10U ⚠
C703	ECBT1E103ZF	25V 0.01U
C703A	ECBT1E103ZF	25V 0.01U
C901	ECBT1E103ZF	25V 0.01U
C902, 903	ECEA1HKS3R3B	50V 3.3U ⚠
C904	ECBT1E103ZF	25V 0.01U
C905	ECBT1H331KB5	50V 330P
C906	ECBT1H101KB5	50V 100P

■ CABINET PARTS LOCATION


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
1
2
6
1
1
1
23
24
CN8A
10
18
20
43
19
19
11
13
14
15
16
17
43
12
13
42
42
23
24
10
8
20
43
18
CN8AA
19
19
11
13
15
16
17
14
43
12
13
44
45
7
46
44
24
38
CN2
CN1
CN6A
24
7
JK1
CN6B
44
CN4
CN7A
CN3
CN5A
CN7B
44
CP1
CP2
41
41
41
41
41
41
9
9-1
42
9-1
42
9-1
9-1
27-1
27
37
34
36
28
43
43
33
3
40
39
CN5B
(38)
42
21
31
39
42
22
35
29
30
47
32
47
26
25
4
27-1
27
37
36
28
34
5

Ref. No.	
1	RH
2	RK
3	RF
4	RY
5	RY
6	XT
7	RW
8	RG
9	RF
9-1	RK
10	RF
11	RF
12	RD
13	RH
14	RM
15	RM
16	RM
17	RM
18	XT
19	XY
20	RF
21	RM
22	RM
23	RE
24	RE
25	RG
26	RG
27	RF
27-1	RU
28	RF
29	RG
30	RG
31	RG
32	RK
33	RF
34	RM
35	RM
36	RM
37	RM
38	RW
39	XT
40	XT
41	SH
42	XT
43	XT
44	XT
45	RW
46	RW
47	RM

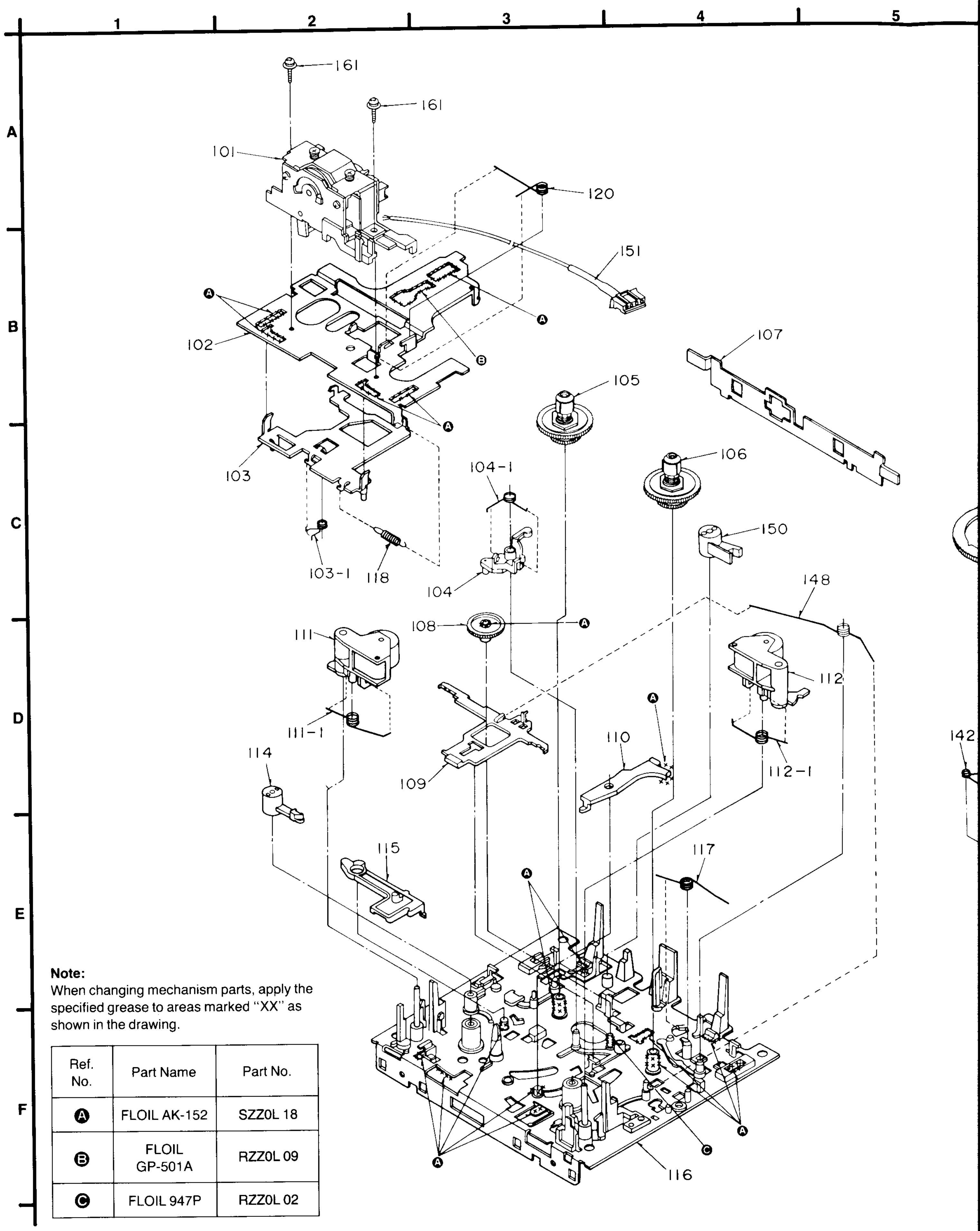


Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0202-1K	CABINET	
3	RFKGSCH950NK	FRONT GRILL ASS'Y	
4	RYF0193B-K	CASSETTE LID(DECK1)	
5	RYF0194-K	CASSETTE LID(DECK2)	
6	XTBS3+8JFZ1	SCREW	
7	RWJ1804200DX	FLAT CABLE(4P)	
8	RGR0147A-F	REAR PANEL	
9	RFKJHCH550PP	BOTTOM BOARD ASS'Y	
9-1	RKA0055-N	FOOT	
10	RFKPSCH950NK	LOADING MOTOR ASS'Y	
11	RFKNSCH950CK	CLUTCH GEAR ASS'Y	
12	RDG0219	DRIVE GEAR	
13	RHW21018	WASHER	
14	RMB0286	SPRING	
15	RMC0194	SPRING PLATE	
16	RML0279	EJECT LEVER	
17	RML0280	SWITCH LEVER	
18	XTB3+8JFZ	SCREW	
19	XYN26+C5	SCREW	
20	RFKJSCH950AK	LOADING CHASSIS ASS'Y	
21	RMN0193	FL HOLDER	
22	RMN0195	FL SPACER	
23	REX0466-2	LEAD CABLE(3P)	
24	REZ0530-1	FLAT CABLE(7P)	
25	RGG0090-K	FRONT PANEL	
26	RGK0488-K	FRONT SUB PANEL	
27	RFKNSCH950AK	CASSETTE HOLDER(A) ASS'Y	
27-1	RUS757ZA	SPRING	
28	RFKNSCH950BK	CASSETTE HOLDER(B) ASS'Y	
29	RGU0792-K	BUTTON, DOLBY NR etc.	
30	RGU0793-K	BUTTON, PLAY(DECK2) etc.	
31	RGU0794-K	BUTTON, PLAY(DECK1) etc.	
32	RKW0237-V	FL PANEL	
33	RFKNSCH950DK	MECHANISM ANGLE ASS'Y	
34	RMA0609	ANGLE	
35	RMB0276	EARTH SPRING	
36	RMB0285	SPRING	
37	RML0281	LEVER	
38	RWJ5415220EE	FLEXIBLE CABLE(15P)	
39	XTBS26+8J	SCREW	
40	XTB3+10JFZ	SCREW	
41	SHE185-2	P.C.B SPACER	
42	XTBS3+8JFZ1	SCREW	
43	XTB3+10JFZ	SCREW	
44	XTB3+16JFZ	SCREW	
45	RWJ5707210XX	FLAT CABLE(7P)	
46	RWJ5710200XX	FLAT CABLE(10P)	
47	RMR0621-K	FIXTURE	

Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS	
		DECK1(PLAYBACK)	
101	RXQ0051-1	HEAD ASS'Y(P.B)	
102	RUA793ZF	CHASSIS	
103	RZLAR300	ROD ASS'Y	
103-1	RUW143ZA	SPRING	
104	1UB0089ZA	ARM ASS'Y	
104-1	RUW148ZA	SPRING	
105	1DM0018ZA	REEL TABLE(R) ASS'Y	
106	1DM0017ZA	REEL TABLE(F) ASS'Y	
107	RML0069-1	LEVER	
108	RDG5772ZC	GEAR	
109	RUB508ZB	LEVER	
110	RUB506ZB	LEVER	
111	1UB0088ZA	PINCH ROLLER(R) ASS'Y	
111-1	RUW141ZA	SPRING	
112	1UB0087ZA	PINCH ROLLER(F) ASS'Y	
112-1	RUW140ZC	SPRING	
114	RNL1ZD	ARM	
115	RUB503ZD	LEVER	
116	RFKRRSCH9N	CHASSIS ASS'Y	
117	RUW142ZA	SPRING	
118	RUD105ZA	SPRING	
120	RUW139ZA	SPRING	
121	RFM133ZA	MOTOR ASS'Y	
122	1UE0015ZA	PLUNGER	
123	RUB428ZE	SHAFT	
124	RMA0101-1	PLATE	
125	RMD5014ZC	SPACER	
126	RDG5927ZG	GEAR	
127	1DW0037ZA	FLY WHEEL(F) ASS'Y	
127-1	RNW139ZA	WASHER	
128	1DW0038ZA	FLY WHEEL(R) ASS'Y	
128-1	RNW138ZA	WASHER	
129	1DG0006ZA	GEAR ASS'Y	
130	RUB513ZD	LEVER	
131	1UB0091ZA	LEVER ASS'Y	
131-1	RUW146ZA	SPRING	
132	1DR0011ZA	PULLEY ASS'Y	
133	RDV90ZB	BELT	
134	RDG5769ZA	GEAR	
135	RUQ111ZB	SPRING	
136	RUW145ZA	SPRING	
137	1UB0090ZA	ROD ASS'Y	
137-1	RUB512ZB	ROD	
138	RDG5773ZB	GEAR	
139	RUQ112ZA	SPRING	
140	RUS609ZC	SPRING	
141	RUB514ZC	LEVER	
142	RUW147ZA	SPRING	

Ref. No.	Part No.	Part Name & Description	Remarks
143	RUB515ZA	LEVER	
144	RUB509ZA	LEVER	
145	RDV108ZA	BELT	
148	RUW144ZA	SPRING	
149	RMG0102-1	RUBBER	
150	RNL180ZB	LEVER	
151	REX0132	CABLE ASS'Y	
161	XTW2+6L	SCREW	
163	XTN26+7J	SCREW	
164	RHE5203ZA	SCREW	
165	XTW2+8S	SCREW	
166	XYC2+JF16	SCREW	
167	RHD26002	SCREW	
168	RJS7T7ZA	CONNECTOR(7P)	
		MECHANISM PARTS	
		DECK2(REC./PLAYBACK)	
201	RXQ0007-2	HEAD ASS'Y(P.B)	
202	RUA793ZF	CHASSIS	
203	RZLAR300	ROD ASS'Y	
203-1	RUW143ZA	SPRING	
204	1UB0089ZA	ARM ASS'Y	
204-1	RUW148ZA	SPRING	
205	1DM0018ZA	REEL TABLE(R) ASS'Y	
206	1DM0017ZA	REEL TABLE(F) ASS'Y	
207	RML0069-1	LEVER	
208	RDG5772ZC	GEAR	
209	RUB508ZB	LEVER	
210	RUB506ZB	LEVER	
211	1UB0088ZA	PINCH ROLLER(R) ASS'Y	
211-1	RUW141ZA	SPRING	
212	1UB0087ZA	PINCH ROLLER(F) ASS'Y	
212-1	RUW140ZC	SPRING	
214	RNL1ZD	ARM	
215	RUB503ZD	LEVER	
216	RFKRRSCH9N	CHASSIS ASS'Y	
217	RUW142ZA	SPRING	
218	RUD105ZA	SPRING	
219	RUW144ZA	SPRING	
220	RUW139ZA	SPRING	
221	RFM133ZA	MOTOR ASS'Y	
222	1UE0015ZA	PLUNGER ASS'Y	
223	RUB428ZE	SHAFT	
224	RMA0101-1	PLATE	
225	RMD5014ZC	SPACER	
226	RDG5927ZG	GEAR	
227	1DW0037ZA	FLY WHEEL(F) ASS'Y	
227-1	RNW139ZA	WASHER	
228	1DW0038ZA	FLY WHEEL(R) ASS'Y	
228-1	RNW138ZA	WASHER	
229	1DG0006ZA	GEAR ASS'Y	
230	RUB513ZD	LEVER	
231	1UB0091ZA	LEVER ASS'Y	
231-1	RUW146ZA	SPRING	
232	1DR0011ZA	PULLEY ASS'Y	
233	RDV90ZB	BELT	
234	RDG5769ZA	GEAR	
235	RUQ111ZB	SPRING	
236	RUW145ZA	SPRING	
237	1UB0090ZA	ROD ASS'Y	
237-1	RUB512ZB	ROD	
238	RDG5773ZB	GEAR	
239	RUQ112ZA	SPRING	
240	RUS609ZC	SPRING	
241	RUB514ZC	LEVER	
242	RUW147ZA	SPRING	
243	RUB515ZA	LEVER	
244	RUB509ZA	LEVER	
245	RDV108ZA	BELT	
249	RMG0102-1	RUBBER	
250	RNL180ZB	LEVER	
251	REX0172	CABLE ASS'Y	
261	XTW2+6L	SCREW	
263	XTN26+7J	SCREW	
264	RHE5203ZA	SCREW	
265	XTW2+8S	SCREW	
266	XYC2+JF16	SCREW	
267	RHD26002	SCREW	
268	RJS10T7ZA	CONNECTOR(7P)	

■ MECHANISM PARTS LOCATION •DECK 1

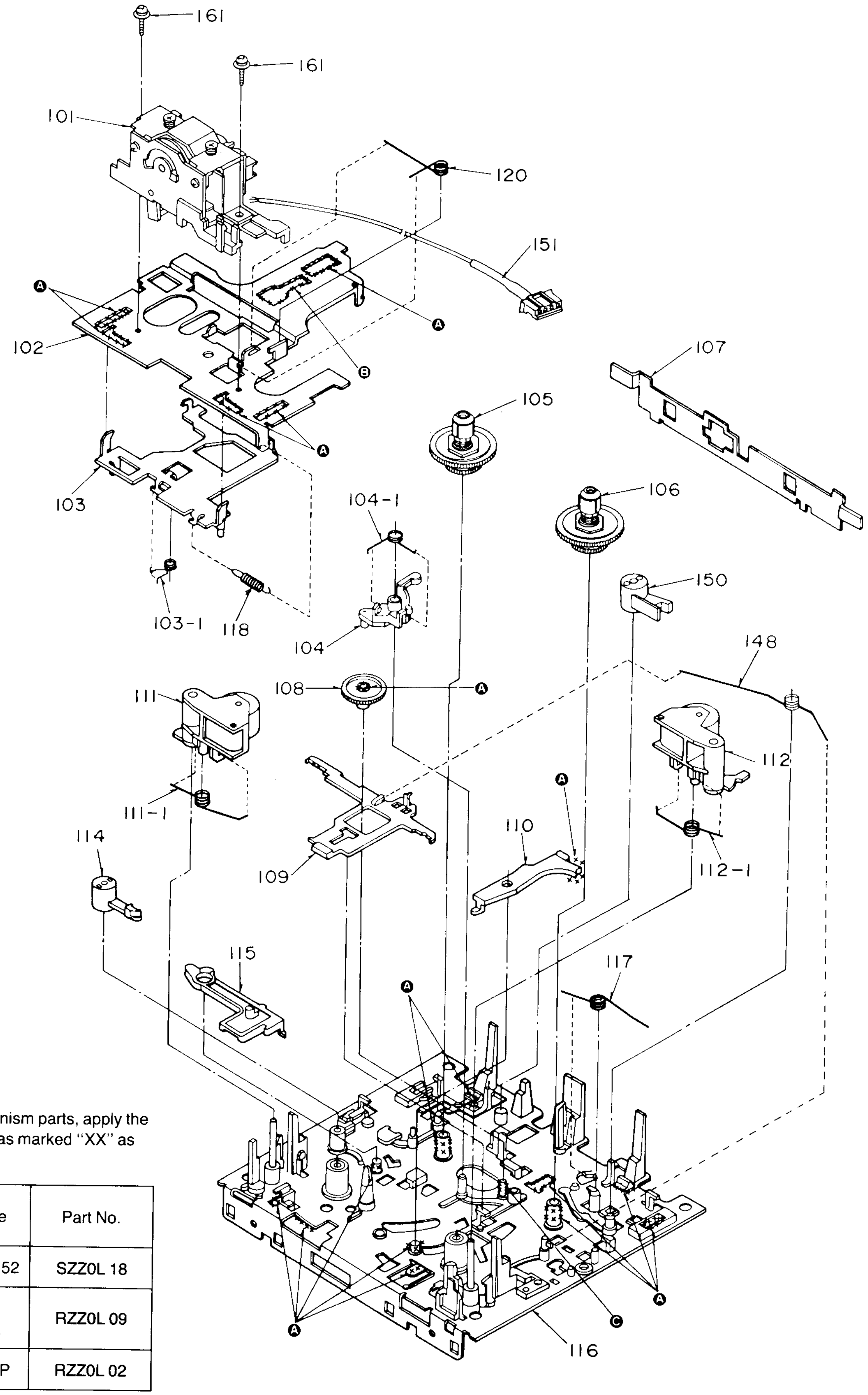


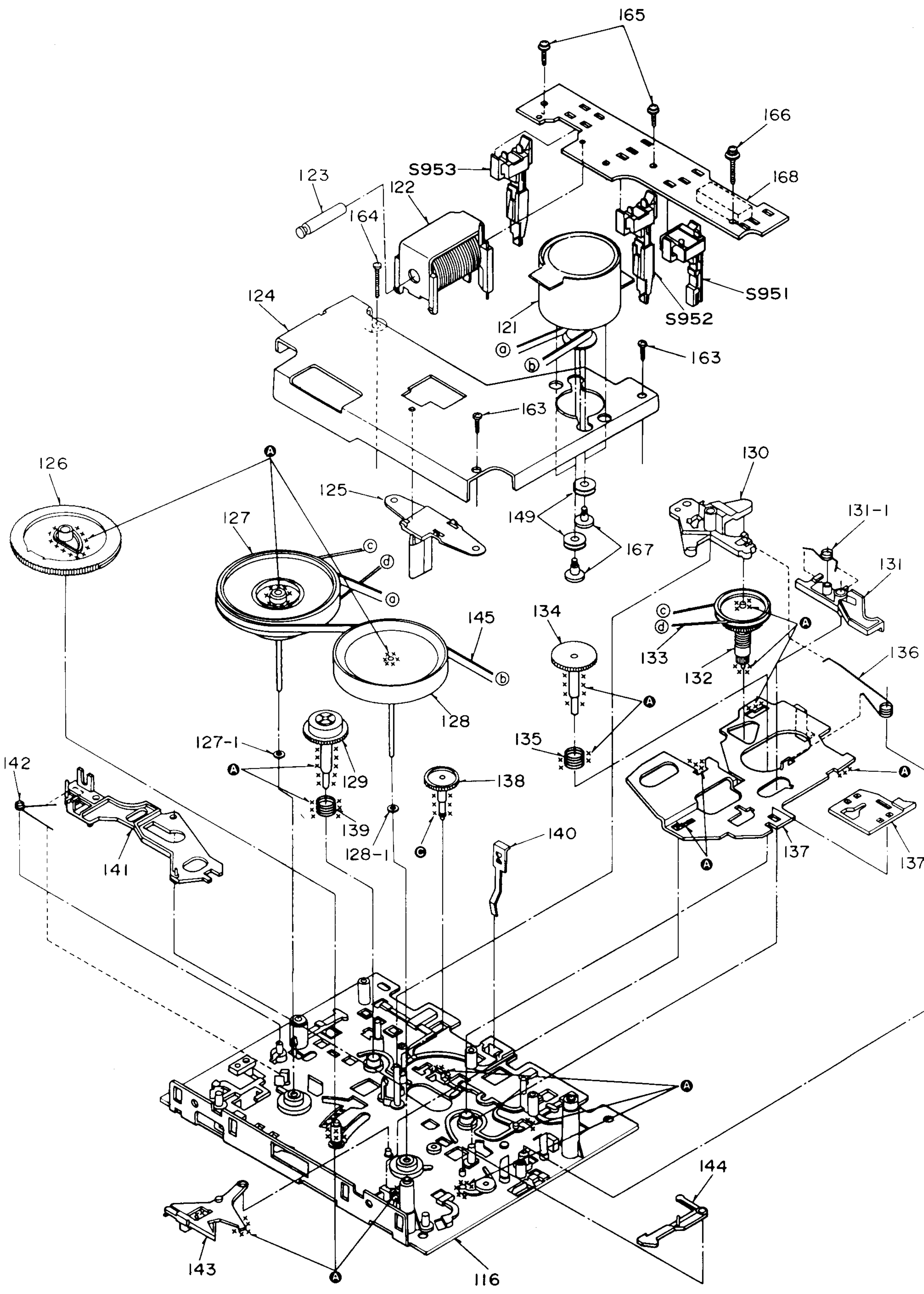
Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZ0L 18
Ⓑ	FLOIL GP-501A	RZZ0L 09
Ⓒ	FLOIL 947P	RZZ0L 02

marks

■ MECHANISM PARTS LOCATION •DECK 1

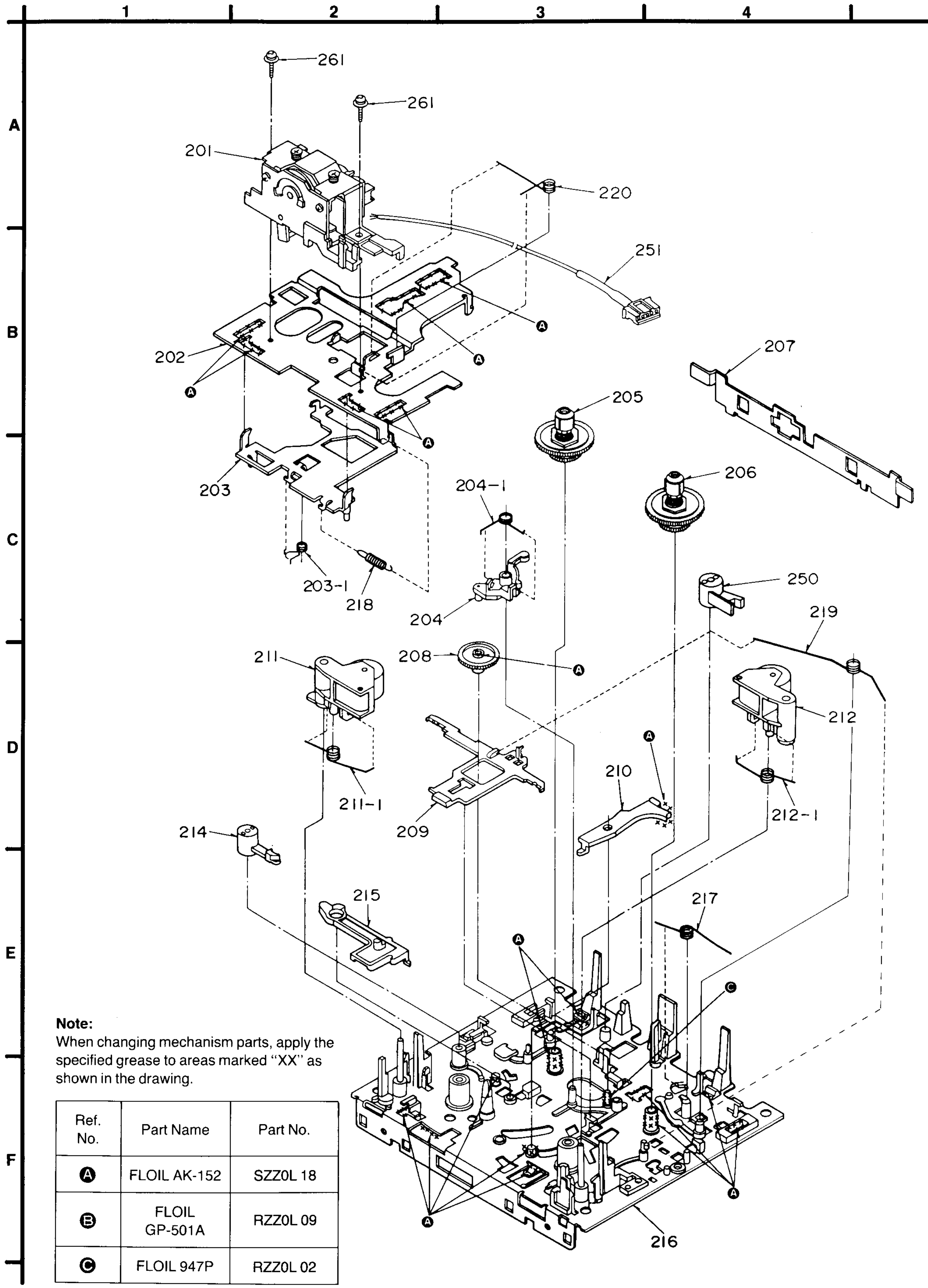

1
2
3
4
5
A
B
C
D
E
F
161
161
101
120
151
102
A
A
B
A
103
103-1
118
104-1
104
105
106
107
150
148
108
A
111
111-1
112
112-1
110
A
109
114
115
117
A
116
C
A
A


6
7
8
9
165
166
168
S953
123
122
164
124
121
a
b
163
163
S952
S951
126
A
125
127
c
d
d
149
167
130
131-1
131
145
b
134
133
132
c
d
A
136
128
135
A
127-1
A
129
138
139
128-1
C
140
142
141
137
A
A
137-1
A
144
143
A
116

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

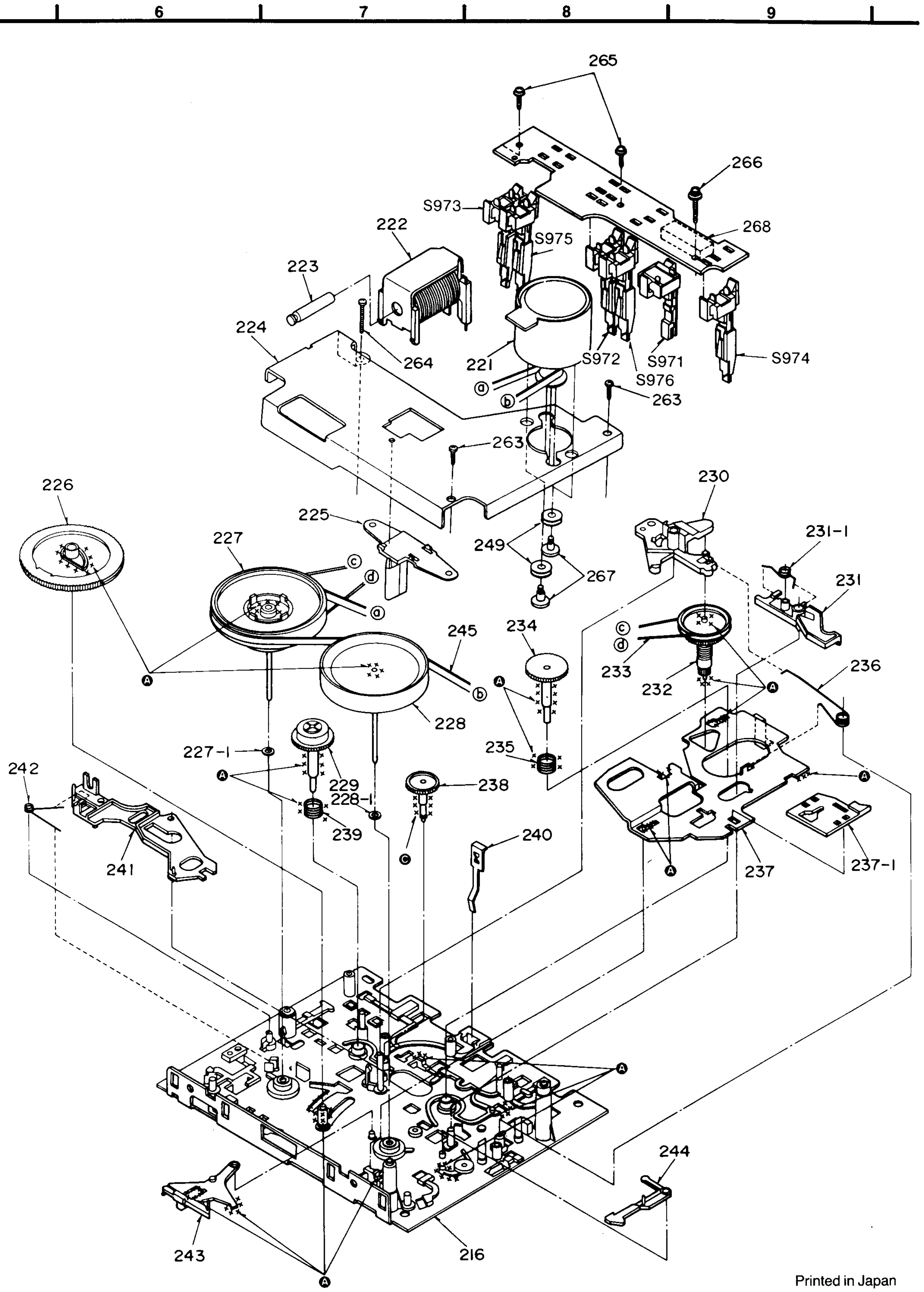
Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZ0L 18
B	FLOIL GP-501A	RZZ0L 09
C	FLOIL 947P	RZZ0L 02

■ MECHANISM PARTS LOCATION •DECK 2

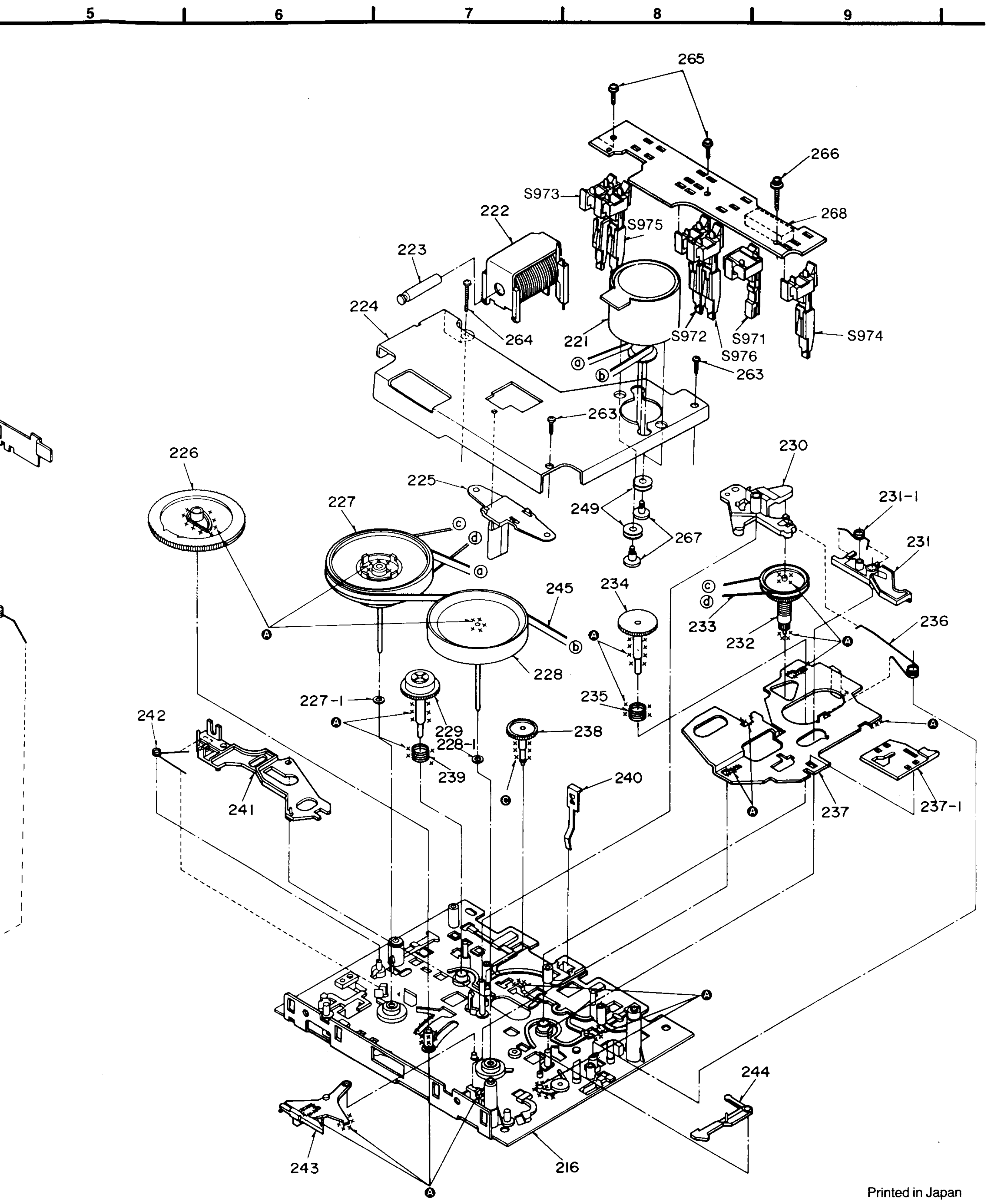

1
2
3
4
5
A
B
C
D
E
F
261
261
201
220
251
202
Ⓐ
Ⓐ
Ⓐ
Ⓐ
207
205
206
203
204-1
250
203-1
218
204
219
211
208
Ⓐ
212
Ⓐ
210
211-1
209
212-1
214
217
215
Ⓐ
Ⓒ
Ⓐ
Ⓐ
216

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZ0L 18
Ⓑ	FLOIL GP-501A	RZZ0L 09
Ⓒ	FLOIL 947P	RZZ0L 02


6
7
8
9
265
266
S973
268
222
S975
223
224
264
221
S972
S971
S974
S976
263
263
ⓐ
ⓑ
226
225
230
231-1
227
249
267
231
ⓒ
ⓓ
ⓐ
234
245
236
ⓒ
ⓓ
233
232
Ⓐ
Ⓐ
Ⓐ
ⓑ
228
235
227-1
229
228-1
238
Ⓐ
242
239
240
Ⓒ
241
237
237-1
Ⓐ
Ⓐ
Ⓐ
244
243
216
Ⓐ

Printed in Japan
F921212000FF/HS/HH


S973
S975
S972
S971
S974
S976
ⓐ
ⓑ
231-1
ⓒ
ⓓ
ⓐ
ⓒ
ⓓ
Ⓐ
ⓑ
227-1
228-1
237-1

ORDER NO. AD9211381C8

Service Manual

Sound Processor

SH-CH750

Colour

(K) .... Black Type

Areas

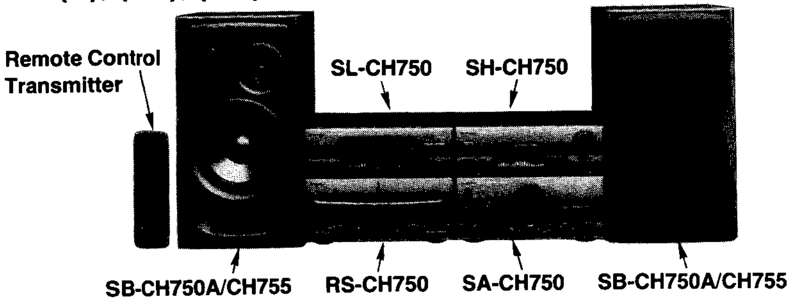
Suffix for Model No.	Area	Colour
(E)	Europe and Oceania	(K)
(GC)	Asia, Latin America, Middle Near East and Africa	

System: SC-CH750

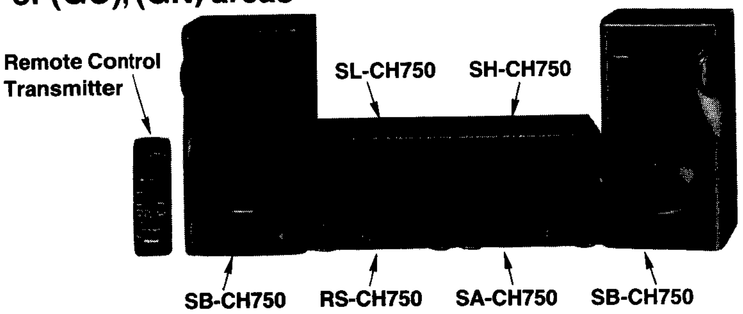
Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Sound Processor

•For (E), (EB), (EG) areas



•For (GC), (GN) areas



SPECIFICATIONS

(DIN 45 500)

■ Pre Amp. Sections	
Input sensitivity and impedance	
PHONO	2.5 mV/47 kΩ
CD, TUNER, TAPE	150 mV/10 kΩ
VCR, VDP, DAT (input with RCA PIN)	250 mV/17 kΩ
MIC	0.7 mV/10 kΩ
Output level	
VCR, DAT REC OUT	150 mV/1.5 kΩ
Equalizer	
Center frequency	
LOW	63, 80, 100, 125, 160, 220 (Hz)
HIGH 1, 2	315, 450, 630, 800, 1 k, 1.25 k, 1.6 k, 2.2 k, 3.15 k, 4.5 k, 6.3 k, 8 k, 10 k, 16 k(Hz)
Level control	
LOW, HIGH 1, 2	±12 dB
(Q) Control	
NARROW	1.8
WIDE	0.7
Fixed mode	
SFP	HALL, LIVE, DISCO, CHRCH (CHURCH), THTER (THEATER)
EQ (5 modes)	HEAVY, CLEAR, SOFT, HP ST, CAR
Frequency response	
PHONO	
(RIAA STANDARD CURVE)	30 Hz–15 kHz/+1.0, −1.5 dB
CD, TUNER, TAPE	20 Hz–20 kHz/−2 dB
VCR, VDP, DAT	20 Hz–20 kHz/−2 dB
S/N	
PHONO	64 dB (DIN)
	85 dB (IHF, at full scale input, IHF A)
TUNER, TAPE	71 dB (DIN)
	88 dB (IHF, at full scale input, IHF A)
CD, VCR, VDP, DAT	75 dB (DIN)
	95 dB (IHF, at full scale input, IHF A)
For (GC) area	
MIC ECHO	0.2—1.6 sec.
For (E) area	
Key control	−300 to +300 cent.
Video output	
MONITOR	1 V/75Ω
VCR REC OUT	1 V/75Ω
■ General	
Dimensions (W×H×D)	270×89.5×270 mm
Weight	1.9 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH750	SH-CH750	SA-CH750	SL-CH750	RS-CH750	*SB-CH750A .... (E), (EB), (EG) areas *SB-CH755 .... Switzerland only SB-CH750 .... (GC), (GN) areas

***Made in PAES**

Technics

■ CONTENTS

Page

•LOCATION OF CONTROLS 2, 3
•DISASSEMBLY INSTRUCTIONS 3, 4
•MEASUREMENT 5
•SCHEMATIC DIAGRAM .... 6~20
•PRINTED CIRCUIT BOARD DIAGRAM................ 21~23

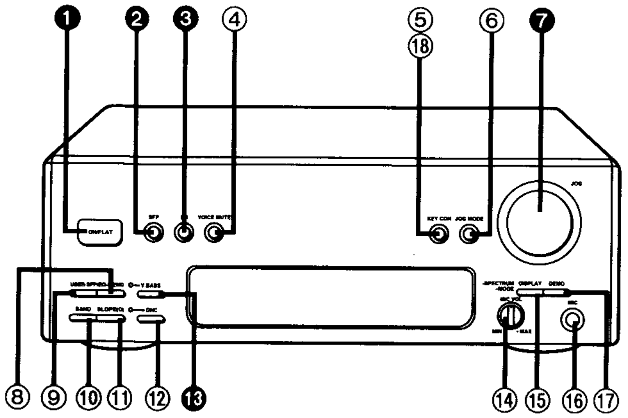
Page

•WIRING CONNECTION DIAGRAM 24
•BLOCK DIAGRAM.................................. 25~27
•FUNCTION OF IC TERMINALS .... 28~30
•REPLACEMENT PARTS LIST .... 31~35
•CABINET PARTS LOCATION............................ 36

NOTES:

Refer to the service manual for Model No. SA-CH750 (Order No. AD9211379C8) for information on "ACCESSORIES", "STACKING THE COMPONENTS", "CONNECTIONS" and "PACKAGING".

■ LOCATION OF CONTROLS



The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.

❶ ON/FLAT button (ON/FLAT)
Press to switch the EQ (equalizer curve) or SFP (simulated listening environment).

❷ SFP mode button (SFP)
Press to select the desired simulated listening environment.

❸ EQ mode button (EQ)
Press to select the desired equalizer mode.

④ Voice mute button (VOICE MUTE)
Press to perform "KARAOKE" (microphone mixing with an accompaniment).

⑤ Key control button (KEY CON)
For (E) area
Use to adjust key level when performing "Karaoke".

⑥ Jog mode button (JOG MODE)
Press this button to select the desired adjustment mode.

❼ Jog control (JOG)
Turn to adjust the level of equalizer curve, simulated listening environment, and specific frequency shift, and so on.

⑧ Memory button (MEMO)
Press to store the desired equalizer curve or simulated listening environment.

⑨ User button (USER)
Press to select the desired "USER" number.

⑩ Frequency band select button (BAND)
Press to select the desired equalizer frequency band.

⑪ Slope (Q) select button [SLOPE (Q)]
Press to select "narrow" or "wide" mode of the curve slope.

⑫ Digital noise cleaner button and indicator (DNC)
Press to reduce the noise on a tape or FM broadcast.

⓭ V. Bass button and indicator (V. BASS)
Press to boost the dynamic low-frequency ranges.

⑭ Microphone volume control (MIC VOL)
Use to adjust the microphone volume level.

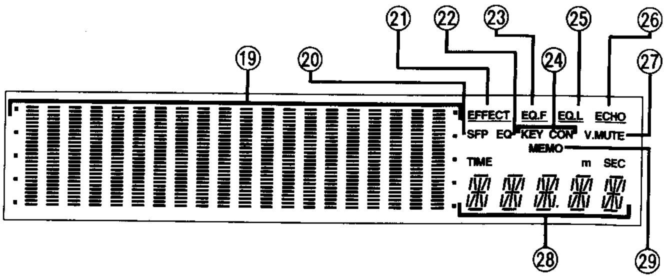
⑮ Display mode select button (DISPLAY, -SPECTRUM, –MODE)
Use to select one of 5 spectrum modes.
Press and hold to extinguish the equalization curve.

⑯ Microphone jack (MIC) (∅6, 10 kΩ)
Plug microphone cord into this jack.

⑰ Demonstration button (DEMO)
Use for reference of the adjustments of equalization curves and SFP mode sounds. The pre-programmed equalization curves and SFP mode sounds will be heard sequentially for adjustment example.

⑱ Echo button (ECHO)
For (GC) area
Press to adjust the reverberation sound when in performing "Karaoke".

•Display section



⑲ Multi level display
Shows the equalization/spectrum analysis level.

⑳ SFP mode indicator (SFP)
Lights when you select the SFP mode (HALL, LIVE, DISCO, CHRCH, THTER).

㉑ **Effect indicator (EFFECT)**
Lights when you select EFFECT mode by pressing JOG MODE.

㉒ **Equalizer mode indicator (EQ)**
Lights when you select the equalizer mode (HEAVY, CLEAR, SOFT, HP ST, CAR).

㉓ **Equalizer frequency indicator (EQ. F)**
Lights when you select EQ. F mode by pressing JOG MODE.

㉔ **Key control indicator (KEY CON)**
For (E) area
Lights when you press KEY CON to adjust the key level while in the "Karaoke" mode.

㉕ **Equalizer level indicator (EQ. L)**
Lights when you select EQ. L mode by pressing JOG MODE.

㉖ **Echo indicator (ECHO)**
For (GC) area
Lights when you press ECHO to adjust the reverberation sound while in the "Karaoke" function.

㉗ **Voice mute indicator (V. MUTE)**
Lights when you activate the "Karaoke" function.

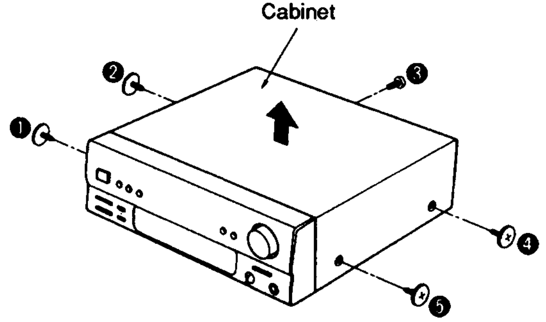
㉘ **Sound mode display**
Shows the sound mode you select.

㉙ **Memory indicator (MEMO)**
Lights when you store the desired curve or simulated listening environment.

■ DISASSEMBLY INSTRUCTIONS

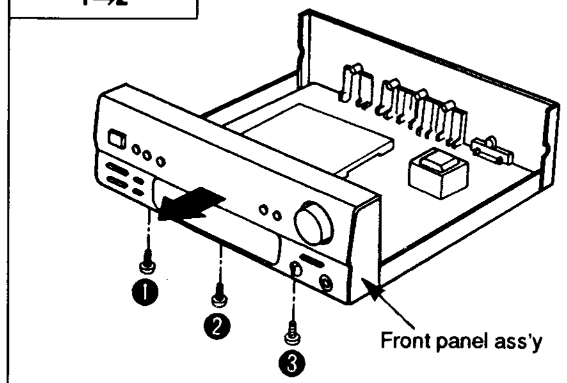
"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1 — **Removal of the Cabinet**
Procedure 1


Cabinet
❶
❷
❸
❹
❺

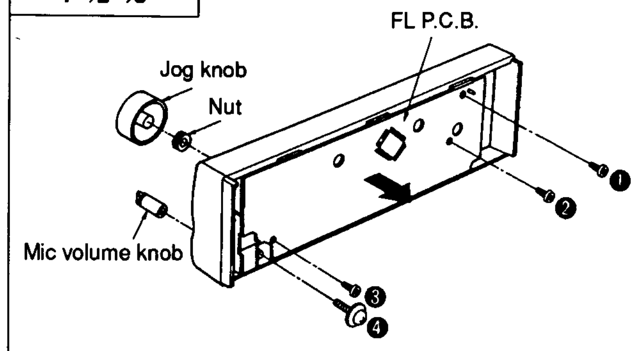
1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2 — **Removal of the Front Panel Ass'y**
Procedure 1→2


❶
❷
❸
Front panel ass'y

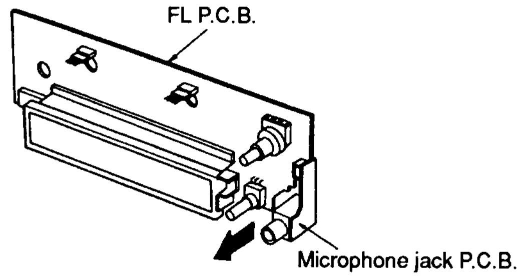
1. Remove the 3 screws (❶~❸).
2. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3 — **Removal of the FL P.C.B.**
Procedure 1→2→3


FL P.C.B.
Jog knob
Nut
Mic volume knob
❶
❷
❸
❹

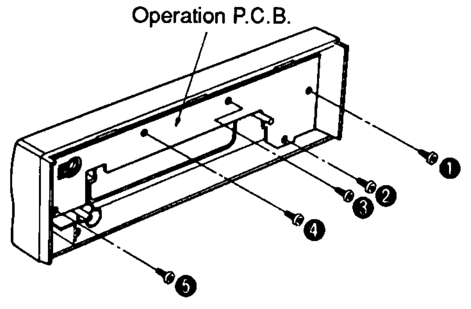
1. Pull out the jog knob and mic volume knob.
2. Remove the nut.
3. Remove the 4 screws (❶~❹).
4. Remove the FL P.C.B. in the direction of arrow.

Ref. No. 4 — **Removal of the Microphone Jack P.C.B.**
Procedure 1→2→3→4


FL P.C.B.
Microphone jack P.C.B.

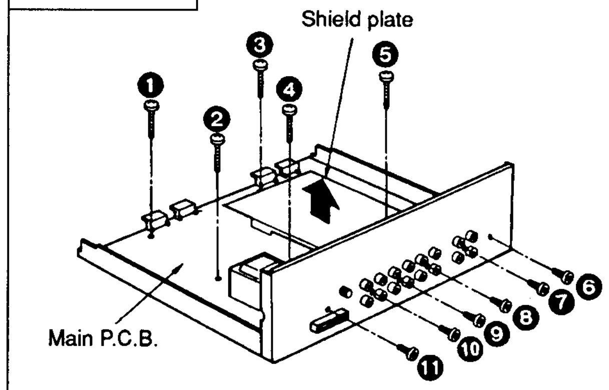
- Remove the microphone jack P.C.B. in the direction of arrow.

Ref. No. 5 — **Removal of the Operation P.C.B.**
Procedure 1→2→3→5


Operation P.C.B.
❶
❷
❸
❹
❺

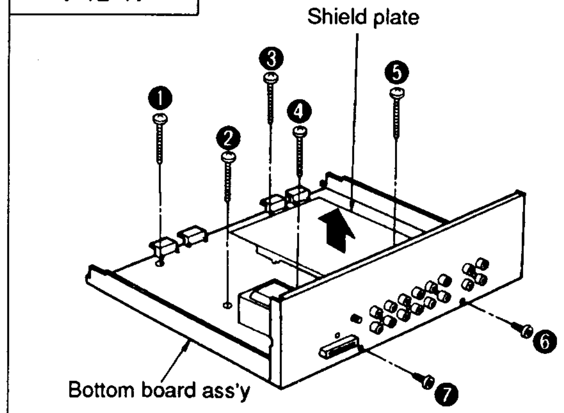
- Remove the 5 screws (❶~❺).

Ref. No. 6 — **Removal of the Main P.C.B.**
Procedure 1→2→6


Shield plate
❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
Main P.C.B.

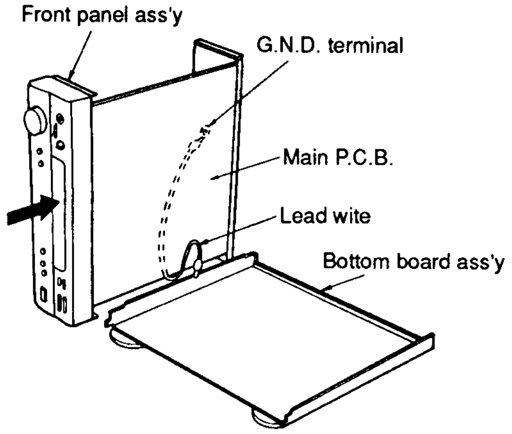
1. Remove the 11 screws (❶~⓫).
2. Remove the shield plate in the direction of arrow.

Ref. No. 7 — **How to check the Main P.C.B.**
Procedure 1→2→7


Shield plate
❶
❷
❸
❹
❺
❻
❼
Bottom board ass'y

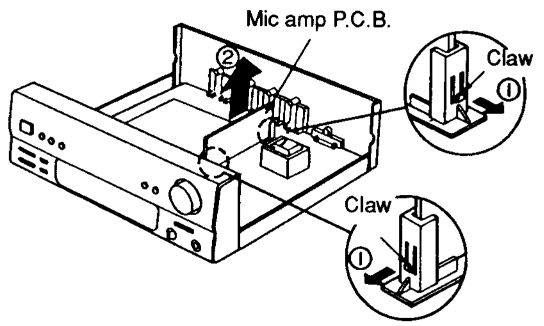
1. Remove the 7 screws (❶~❼).
2. Remove the bottom board ass'y.
3. Remove the shield plate in the direction of arrow.

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as shown below.


Front panel ass'y
G.N.D. terminal
Main P.C.B.
Lead wite
Bottom board ass'y

4. Reinstall the front panel ass'y to the main P.C.B.
5. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.

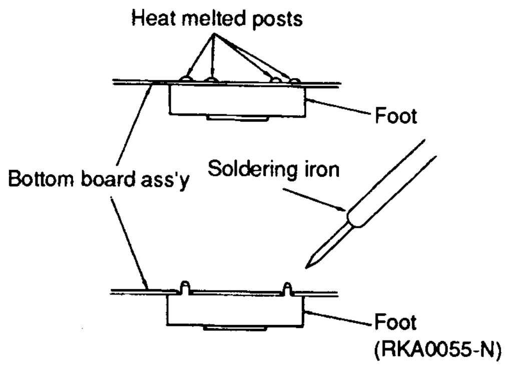
Ref. No. 8 — **Removal of the Mic amp P.C.B. (For GC area)**
Procedure 1→8


Mic amp P.C.B.
②
Claw
①
Claw
①

- Pull the 2 claws in the direction of arrow ①, and remove the mic amp P.C.B. in the direction of arrow ②.

■ Replacement of the Foot

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat melted posts
Foot
Bottom board ass'y
Soldering iron
Foot
(RKA0055-N)

■ M

■ This
If yo
follo
•Appl

•How
The SH
Tuner a
operati

1. Press
2. Afterw
3. After fi

Sw
Mode in on FL d

Sw
Mode in on FL d

JOG MODE.

rberation sound

l.

ulated listening

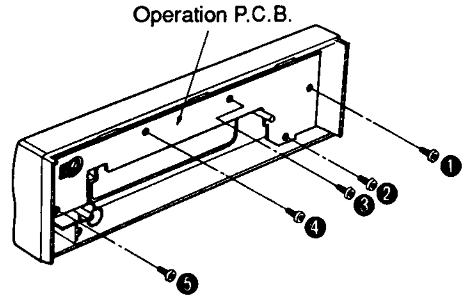
l Ass'y

.

e Jack

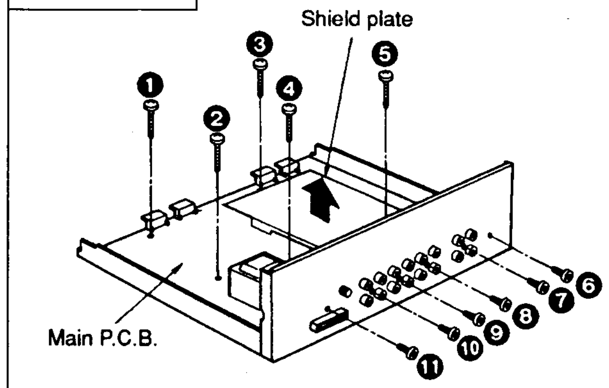
P.C.B.

Ref. No. 5	Removal of the Operation P.C.B.
Procedure 1→2→3→5	


Operation P.C.B.
❶
❷
❸
❹
❺

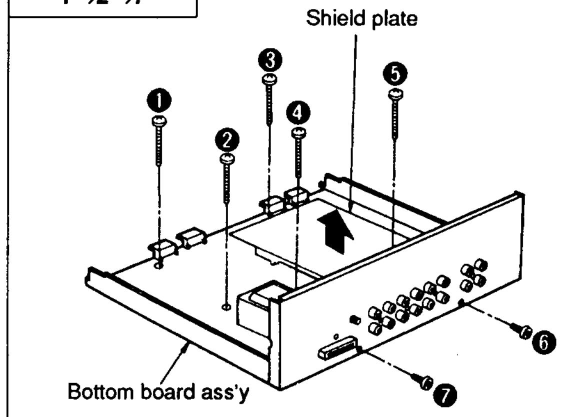
- Remove the 5 screws (❶~❺).

Ref. No. 6	Removal of the Main P.C.B.
Procedure 1→2→6	


Shield plate
❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
Main P.C.B.

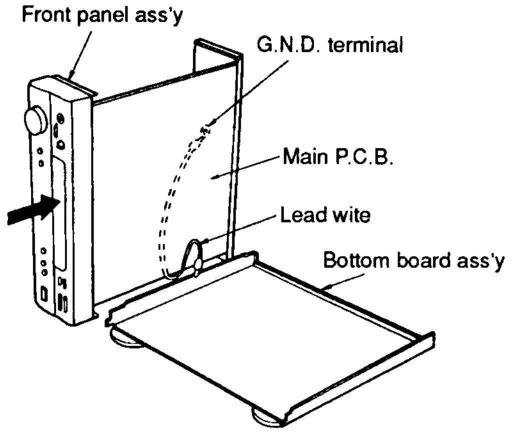
1. Remove the 11 screws (❶~⓫).
2. Remove the shield plate in the direction of arrow.

Ref. No. 7	How to check the Main P.C.B.
Procedure 1→2→7	


Shield plate
❶
❷
❸
❹
❺
❻
❼
Bottom board ass'y

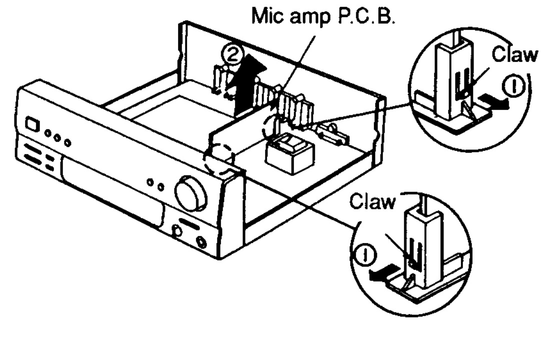
1. Remove the 7 screws (❶~❼).
2. Remove the bottom board ass'y.
3. Remove the shield plate in the direction of arrow.

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as shown below.


Front panel ass'y
G.N.D. terminal
Main P.C.B.
Lead wite
Bottom board ass'y

4. Reinstall the front panel ass'y to the main P.C.B.
5. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.

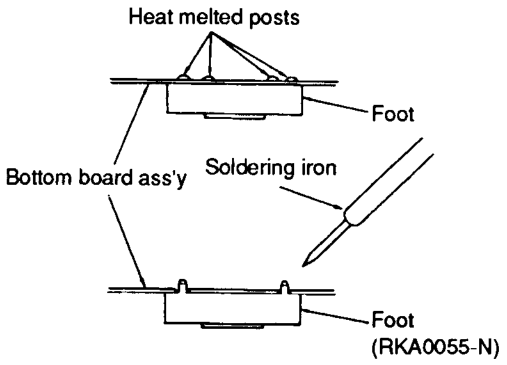
Ref. No. 8	Removal of the Mic amp P.C.B. (For GC area)
Procedure 1→8	


Mic amp P.C.B.
②
Claw
①
Claw
①

- Pull the 2 claws in the direction of arrow ①, and remove the mic amp P.C.B. in the direction of arrow ②.

■ Replacement of the Foot

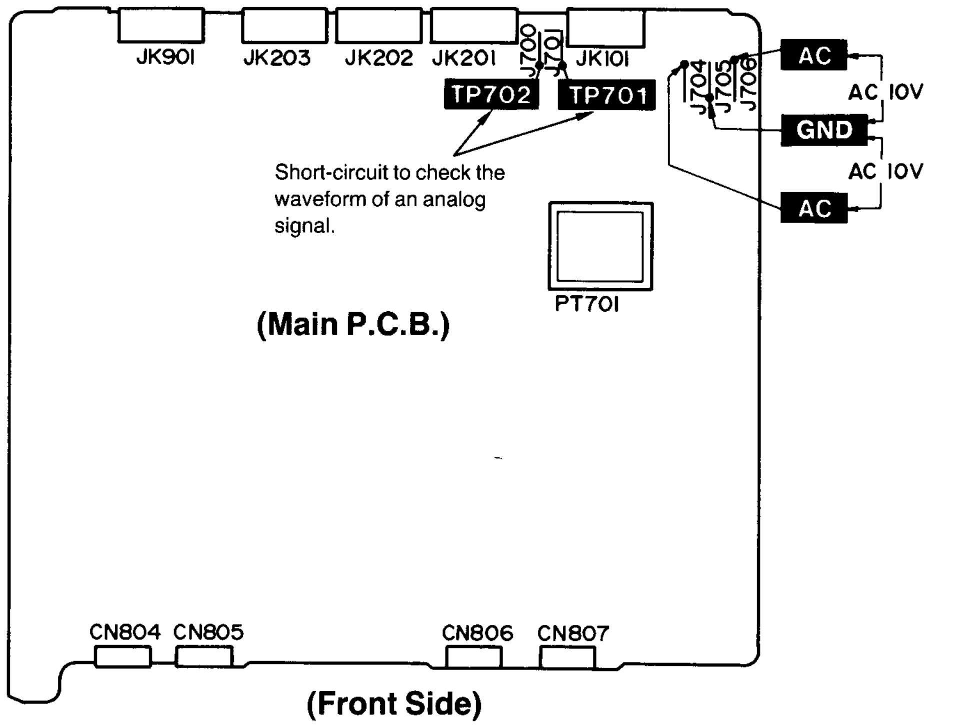
1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat melted posts
Foot
Bottom board ass'y
Soldering iron
Foot
(RKA0055-N)

■ MEASUREMENT

■ This unit (SH-CH750) is actuated by power supply from the tuner amplifier SA-CH750. If you wish to actuate this unit without using the tuner amplifier SA-CH750 for checking or repairing, follow below procedure.

- Apply AC 10 V between **AC** (J704)– **GND** (J705)– **AC** (J706). (Shown in Fig. 1)


JK901
JK203
JK202
JK201
J700
J701
JK101
TP702
TP701
J704
J705
J706
AC
AC 10V
GND
AC 10V
AC
Short-circuit to check the waveform of an analog signal.
PT701
(Main P.C.B.)
CN804
CN805
CN806
CN807

(Front Side)

Fig. 1

•How to Select Input Signal

The SH-CH750 is not equipped with the Input Signal Selector since the input signal is selected on the Tuner amplifier SA-CH750. However, you can select signal source on SH-CH750 by following the operating procedures mentioned in Fig. 2.

1. Press the ON/FLAT (S801), SFP (S802) and EQ (S803) buttons simultaneously and hold for 4 seconds.
2. Afterwards, the following buttons allow you to select the desired source.
3. After finishing the measurement of voltage, press the DISPLAY (S811) button.

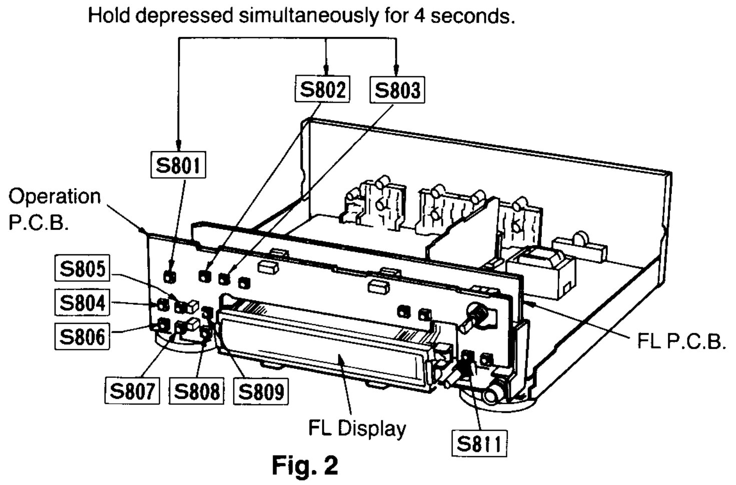
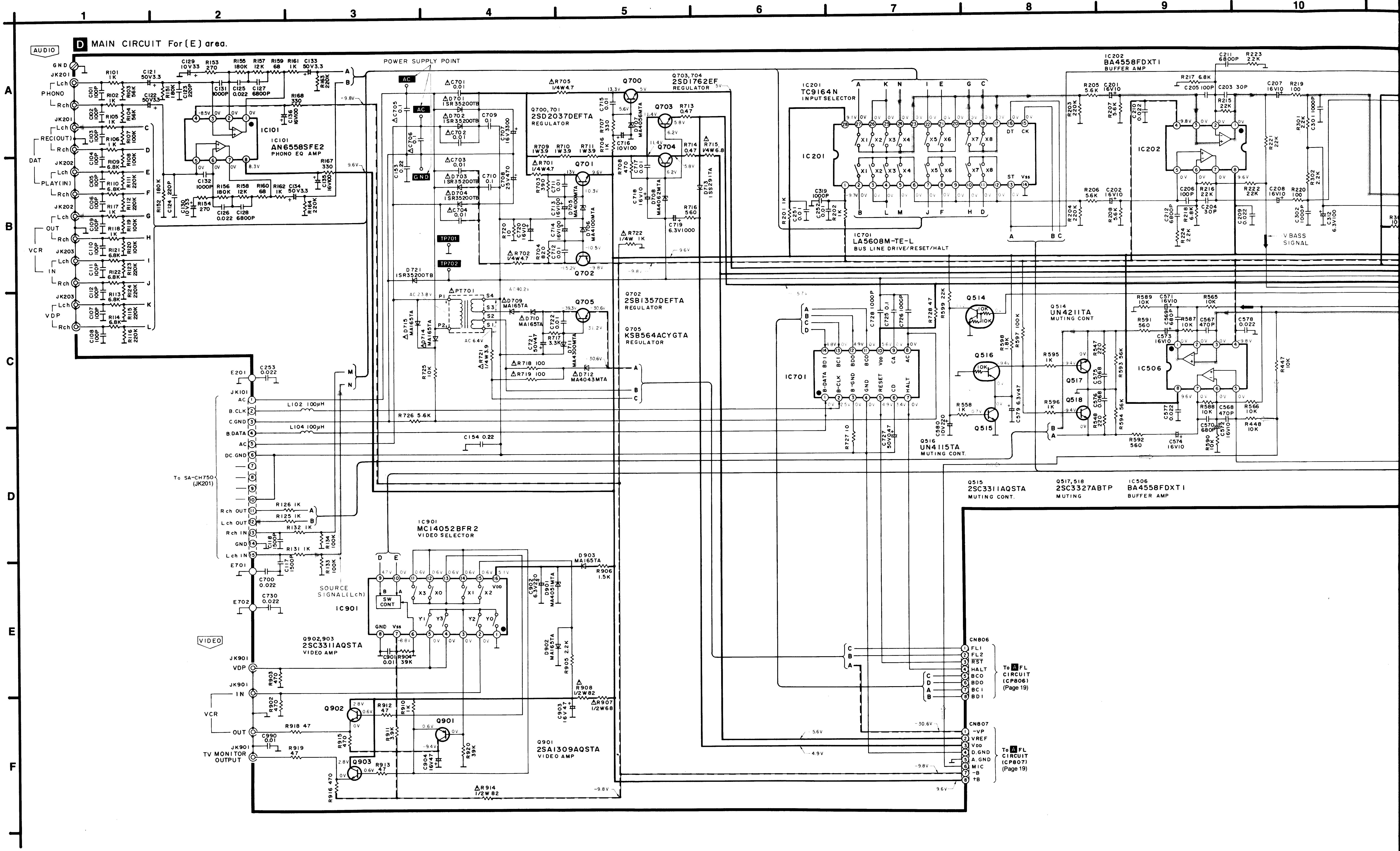

Hold depressed simultaneously for 4 seconds.
S802
S803
S801
Operation P.C.B.
S805
S804
S806
S807
S808
S809
FL Display
S811
FL P.C.B.

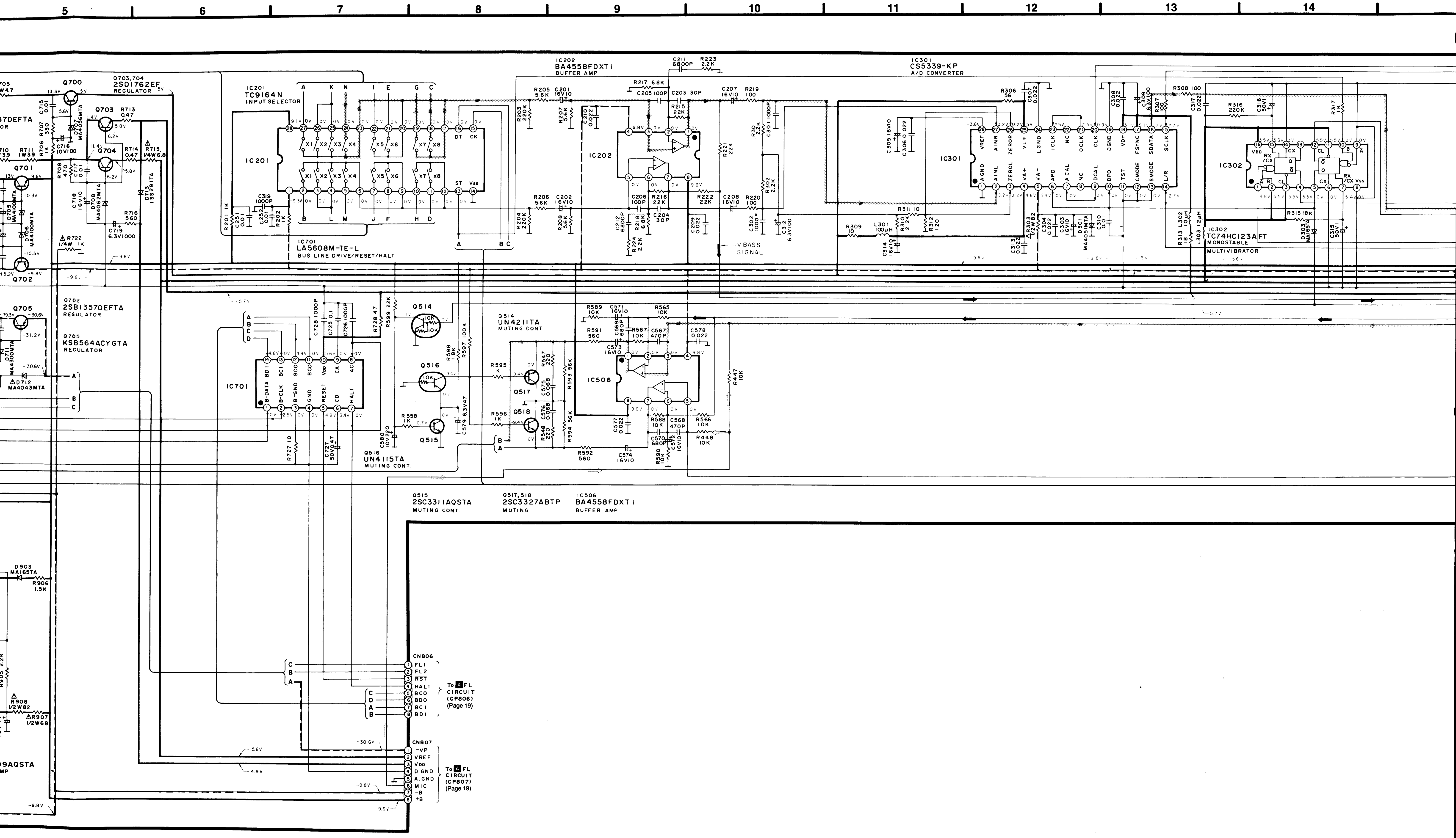
Fig. 2

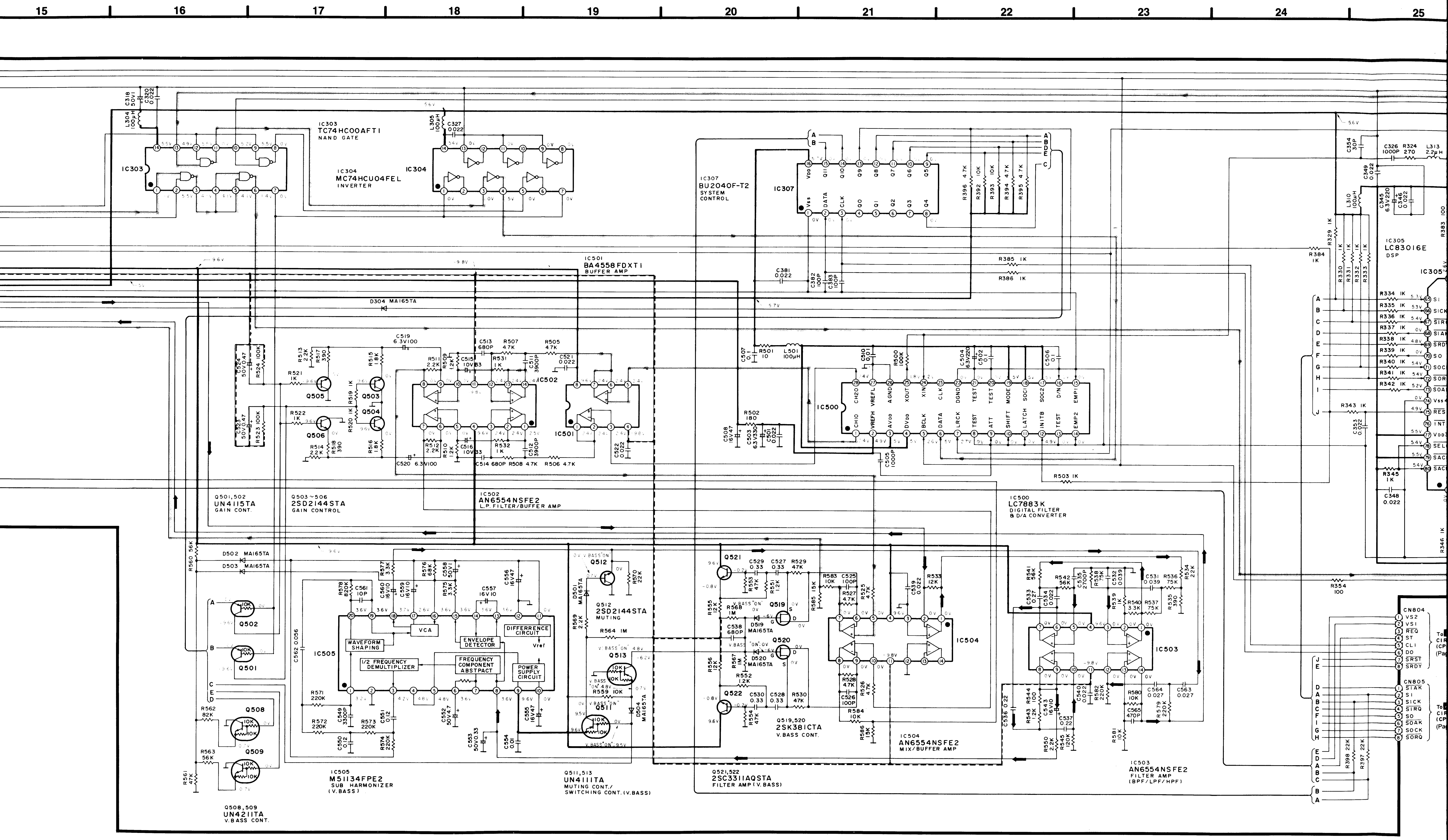
Switch	Switch S808 DNC button	Switch S807 SLOPE (Q) button	Switch S809 V. BASS button	Switch S804 USER button
Mode indicator on FL display	DAT (DAT mode)	BS (BS mode)	PHONO (PHONO mode)	TAPE (TAPE mode)

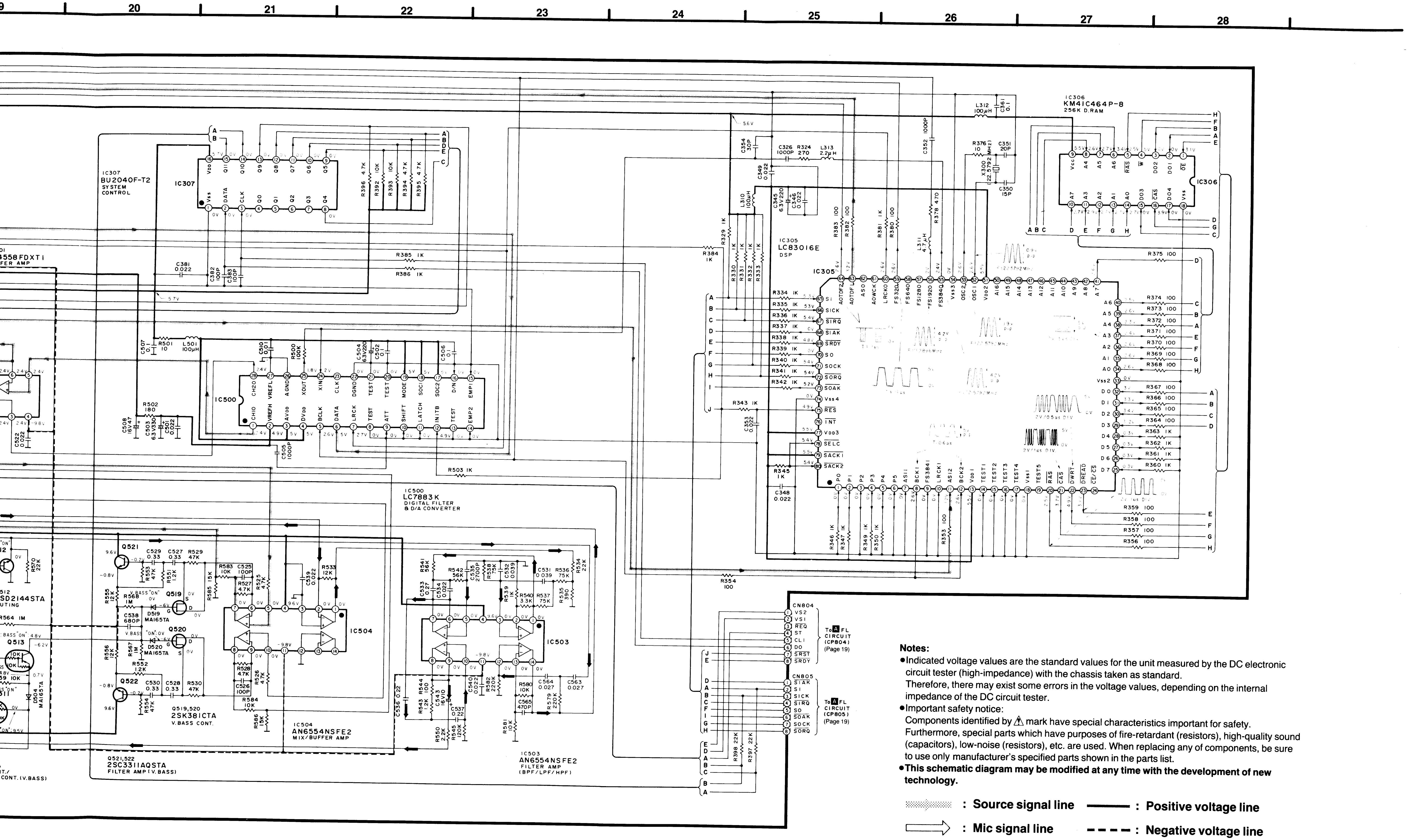
Switch	Switch S805 MEMO button	Switch S806 BAND button	Switch S802 SFP button	Switch S803 EQ button
Mode indicator on FL display	TUNER (Tuner mode)	CD (CD mode)	VDP (VDP mode)	VCR (VCR mode)

■ SCHEMATIC DIAGRAM •MAIN CIRCUIT for (E) area (Parts list on pages 31~35.)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
AUDIO
D MAIN CIRCUIT For (E) area.
PHONO
REC(OUT)
DAT
PLAY(IN)
OUT
VCR
IN
VDP
IC101
AN6558SFE2
PHONO EQ AMP
POWER SUPPLY POINT
AC
GND
TP701
TP702
Q700
Q701
Q702
Q703
Q704
Q705
Q700,701
2SD2037DEFTA
REGULATOR
Q703,704
2SD1762EF
REGULATOR
Q702
2SB1357DEFTA
REGULATOR
Q705
KSB564ACYGTA
REGULATOR
PT701
IC201
TC9164N
INPUT SELECTOR
IC701
LA5608M-TE-L
BUS LINE DRIVE/RESET/HALT
IC202
BA4558FDXT1
BUFFER AMP
V BASS
SIGNAL
Q514
UN4211TA
MUTING CONT
Q516
UN4115TA
MUTING CONT.
Q515
2SC3311AQSTA
MUTING CONT.
Q517,518
2SC3327ABTP
MUTING
IC506
BA4558FDXT1
BUFFER AMP
To SA-CH750
(JK201)
AC
B.CLK
C.GND
B.DATA
AC
DC.GND
Rch OUT
Lch OUT
Rch IN
GND
Lch IN
IC901
MC14052BFR2
VIDEO SELECTOR
SOURCE
SIGNAL(Lch)
SW
CONT
VIDEO
Q902,903
2SC3311AQSTA
VIDEO AMP
Q901
2SA1309AQSTA
VIDEO AMP
TV MONITOR
OUTPUT
CN806
FL1
FL2
RST
HALT
BCO
BDO
BC1
BD1
To A FL
CIRCUIT
(CP806)
(Page 19)
CN807
-VP
VREF
VDD
D.GND
A.GND
MIC
-B
+B
To A FL
CIRCUIT
(CP807)
(Page 19)


5
6
7
8
9
10
11
12
13
14
Q700
Q703,704
2SD1762EF
REGULATOR
Q703
Q704
Q701
Q702
Q705
Q702
2SB1357DEFTA
REGULATOR
Q705
KSB564ACYGTA
REGULATOR
D712
MA4043MTA
D903
MA165TA
R906
1.5K
R908
1/2W82
R907
1/2W68
9AQSTA
IC201
TC9164N
INPUT SELECTOR
IC701
LA5608M-TE-L
BUS LINE DRIVE/RESET/HALT
IC202
BA4558FDXT1
BUFFER AMP
IC301
CS5339-KP
A/D CONVERTER
IC302
TC74HC123AFT
MONOSTABLE
MULTIVIBRATOR
-V BASS
SIGNAL
Q514
Q516
Q515
Q517
Q518
Q514
UN4211TA
MUTING CONT
Q516
UN4115TA
MUTING CONT.
IC506
Q515
2SC3311AQSTA
MUTING CONT.
Q517,518
2SC3327ABTP
MUTING
IC506
BA4558FDXT1
BUFFER AMP
CN806
FL1
FL2
RST
HALT
BCO
BDO
BCI
BDI
To A FL
CIRCUIT
(CP806)
(Page 19)
CN807
-VP
VREF
VDD
D.GND
A.GND
MIC
-B
+B
To A FL
CIRCUIT
(CP807)
(Page 19)


15
16
17
18
19
20
21
22
23
24
25
IC303 TC74HC00AFT1 NAND GATE
IC304 MC74HCU04FEL INVERTER
L304 100μH
C318 50V1
C320 0.022
L305 100μH
C327 0.022
IC307 BU2040F-T2 SYSTEM CONTROL
R396 4.7K
R392 10K
R393 10K
R394 4.7K
R395 4.7K
C381 0.022
C382 100P
C383 100P
R385 1K
R386 1K
IC305 LC83016E DSP
R384 1K
R329 1K
R330 1K
R331 1K
R332 1K
R333 1K
R334 1K
R335 1K
R336 1K
R337 1K
R338 1K
R339 1K
R340 1K
R341 1K
R342 1K
R343 1K
R345 1K
C348 0.022
C353 0.022
R354 100
C354 30P
C326 1000P
R324 270
L313 2.2μH
C349 0.022
L310 100μH
C345 6.3V220
C346 0.022
R383 100
R346 1K
SI
SICK
SIRQ
SIAK
SRDY
SO
SOCK
SORQ
SOAK
Vss
RES
INT
VDD
SEL
SAC
IC501 BA4558FDXT1 BUFFER AMP
D304 MA165TA
C519 6.3V100
R513 2.2K
R517 390
R515 1.8K
R521 1K
R519 1K
R520 1K
R522 1K
R514 2.2K
R518 390
R516 1.8K
C520 6.3V100
Q505
Q503
Q504
Q506
C524 50V0.47
R524 100K
C525 50V0.47
R523 100K
R511 2.2K
R509 12K
C515 10V33
C513 680P
R507 4.7K
R531 1K
R505 4.7K
C511 3900P
C521 0.022
IC502
R512 2.2K
R510 12K
C516 10V33
C514 680P
R508 4.7K
R532 1K
C512 3900P
R506 4.7K
C522 0.022
IC501
Q501,502 UN4115TA GAIN CONT.
Q503~506 2SD2144STA GAIN CONTROL
IC502 AN6554NSFE2 L.P. FILTER/BUFFER AMP
IC500 LC7883K DIGITAL FILTER & D/A CONVERTER
C507 0.1
R501 10
L501 100μH
C510 0.01
R500 100K
C504 6.3V220
C502 0.1
C506 0.1
R502 180
C508 16V47
C503 6.3V330
C501 0.022
C505 1000P
R503 1K
IC500
CH2O VREFL AGND XOUT XIN CLK DGND TEST TEST MODE SOC1 SOC2 D/N EMP1
CH1O VREFH AVDD DVDD BCLK DATA LRCK TEST ATT SHIFT LATCH INITB TEST EMP2
R560 56K
D502 MA165TA
D503 MA165TA
Q502
Q501
Q508
Q509
R562 82K
R563 56K
R561 47K
Q508,509 UN4211TA V.BASS CONT.
C562 0.056
R578 820K
C561 10P
R577 3.3K
C560 16V10
C559 16V10
R576 68K
R575 3.3K
C558 50V1
C557 16V10
C556 16V47
IC505
WAVEFORM SHAPING
VCA
ENVELOPE DETECTOR
DIFFERRENCE CIRCUIT
Vref
1/2 FREQUENCY DEMULTIPLIZER
FREQUENCY COMPONENT ABSTRACT
POWER SUPPLY CIRCUIT
R571 220K
R572 220K
C549 3300P
R573 220K
C551 0.12
C550 0.12
R574 220K
C552 50V4.7
C553 50V0.33
C554 0.01
C555 16V47
IC505 M51134FPE2 SUB HARMONIZER (V.BASS)
Q512
R570 22K
D501 MA165TA
Q512 2SD2144STA MUTING
R569 2.2K
R564 1M
Q513
R559 10K
Q511
D504 MA165TA
Q511,513 UN4111TA MUTING CONT./ SWITCHING CONT. (V.BASS)
V.BASS "ON"
Q521
C529 0.33
C527 0.33
R529 47K
R553 47K
R551 12K
R583 10K
C525 100P
R585 15K
R527 4.7K
R525 4.7K
C539 0.022
R533 12K
R555 12K
R568 1M
Q519
C538 680P
D519 MA165TA
Q520
R556 12K
R567 1M
D520 MA165TA
R552 12K
Q522
R554 47K
C530 0.33
C528 0.33
R530 47K
R528 4.7K
C526 100P
R584 10K
R526 4.7K
R586 15K
IC504
Q519,520 2SK381CTA V.BASS CONT.
Q521,522 2SC3311AQSTA FILTER AMP (V.BASS)
IC504 AN6554NSFE2 MIX/BUFFER AMP
R541 56K
R542 56K
C535 2700P
R538 7.5K
C532 0.039
C531 0.039
R536 75K
R534 2.2K
C533 0.27
C534 0.022
R539 1K
R540 3.3K
R537 75K
R535 390
IC503
C536 0.22
R544 10K
C543 16V10
C540 0.022
R582 22K
R580 10K
C565 470P
C564 0.027
C563 0.027
R579 220K
R543 2.2K
C537 0.22
R550 2.2K
R545 120K
R581 10K
IC503 AN6554NSFE2 FILTER AMP (BPF/LPF/HPF)
CN804
VS2
VS1
REQ
ST
CLI
DO
SRST
SRDY
CN805
STAK
SI
SICK
SIRQ
SO
SOAK
SOCK
SORQ
R398 22K
R397 22K
A B C D E F G H I J
5.6V
9.6V
9.8V
5.7V


19
20
21
22
23
24
25
26
27
28
IC307
BU2040F-T2
SYSTEM CONTROL
IC305
LC83016E
DSP
IC306
KM41C464P-8
256K D.RAM
IC500
LC7883K
DIGITAL FILTER & D/A CONVERTER
IC504
AN6554NSFE2
MIX/BUFFER AMP
IC503
AN6554NSFE2
FILTER AMP (BPF/LPF/HPF)
Q519,520
2SK381CTA
V.BASS CONT.
Q521,522
2SC3311AQSTA
FILTER AMP (V.BASS)
Q521
Q522
Q519
Q520
Q513
D519 MA165TA
D520 MA165TA
SD2144STA
4558FDXT1
FER AMP
CN804
VS2
VS1
REQ
ST
CL1
DO
SRST
SRDY
To A FL CIRCUIT (CP804) (Page 19)
CN805
SIAK
SI
SICK
SIRQ
SO
SOAK
SOCK
SORQ
To A FL CIRCUIT (CP805) (Page 19)
X300 22.5792MHz
L310 100μH
L311 4.7μH
L312 100μH
L313 2.2μH
L501 100μH
R501 10
R502 180
R503 1K
R354 100
R375 100
R343 1K
R345 1K
R384 1K
R329 1K
R385 1K
R386 1K
C381 0.022
C348 0.022
C326 1000P
R324 270
C352 1000P
R376 10
C351 20P
C350 15P
C361 0.1
"BASS" ON
CONT. (V.BASS)

Notes:

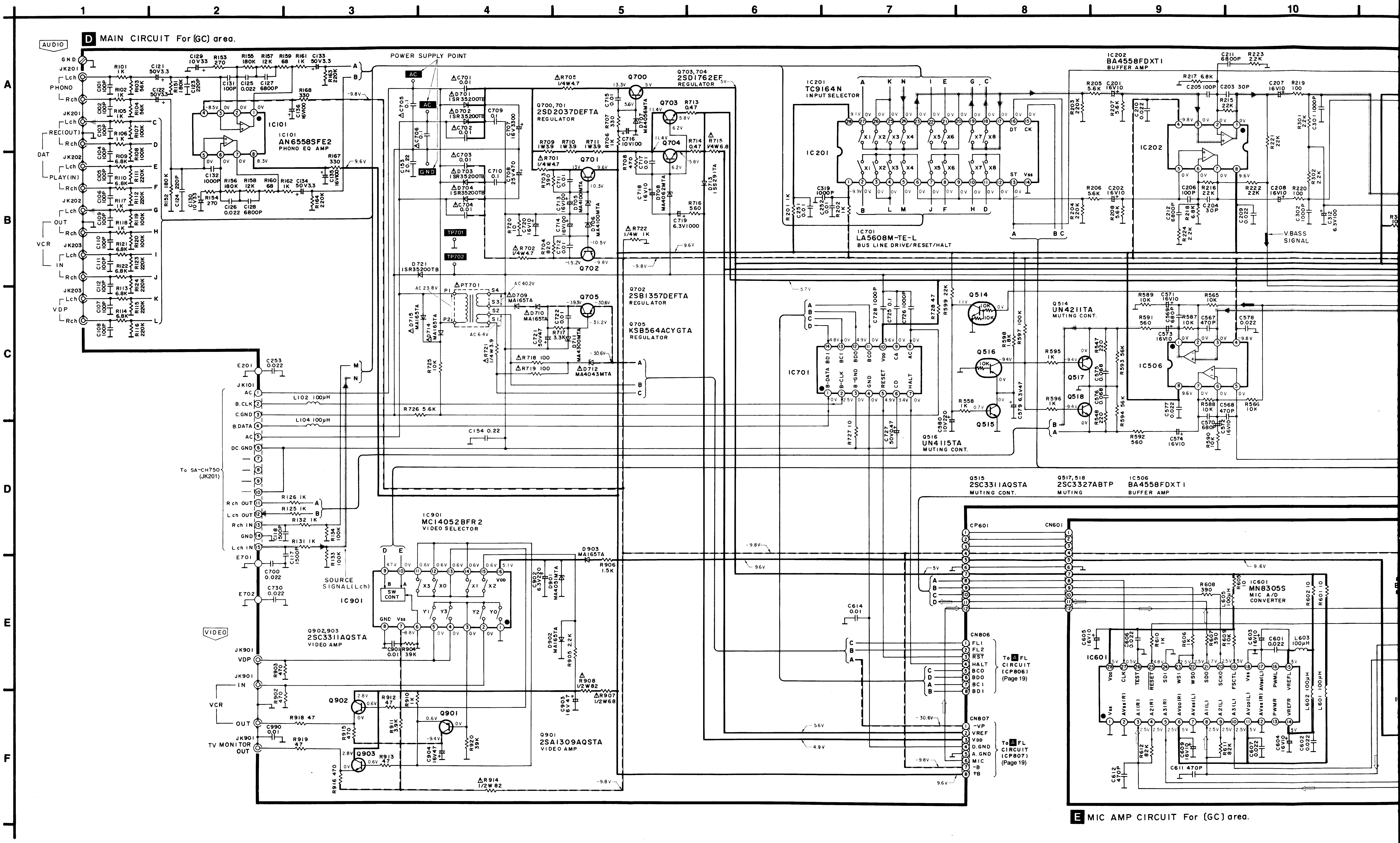
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- **This schematic diagram may be modified at any time with the development of new technology.**

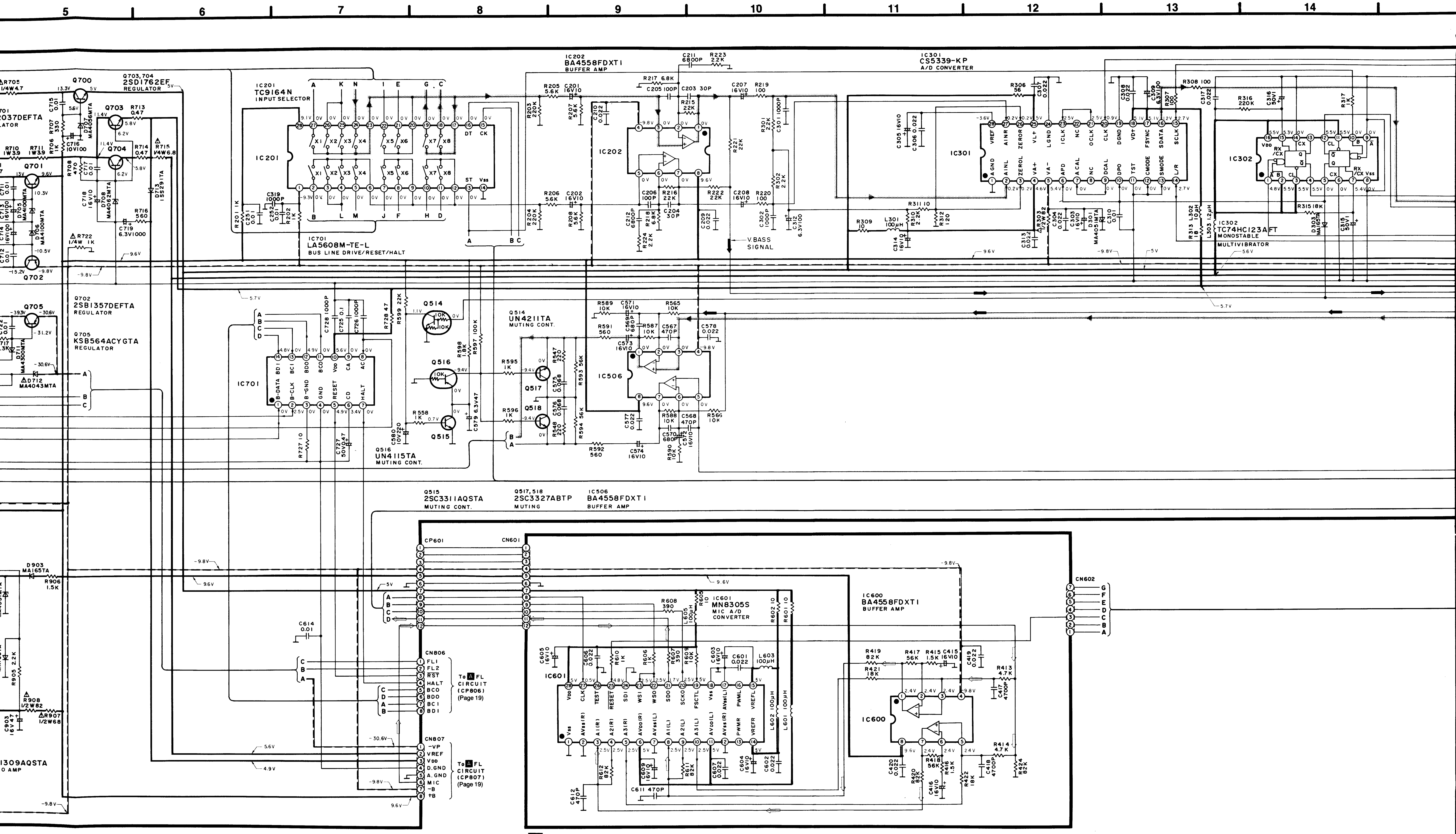
░ : **Source signal line** —— : **Positive voltage line**

⇨ : **Mic signal line** - - - - : **Negative voltage line**

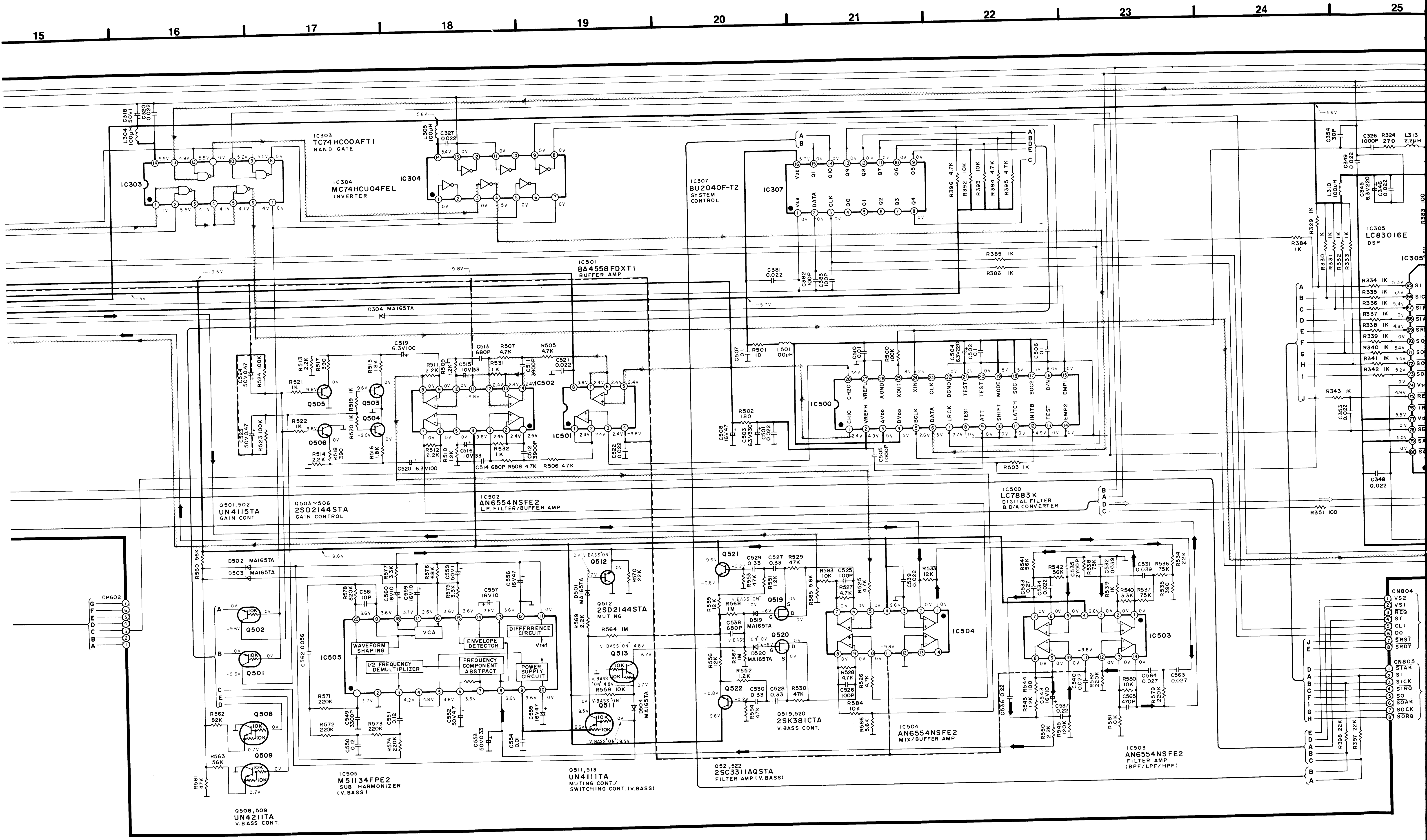
➡ : **V. Bass signal line**

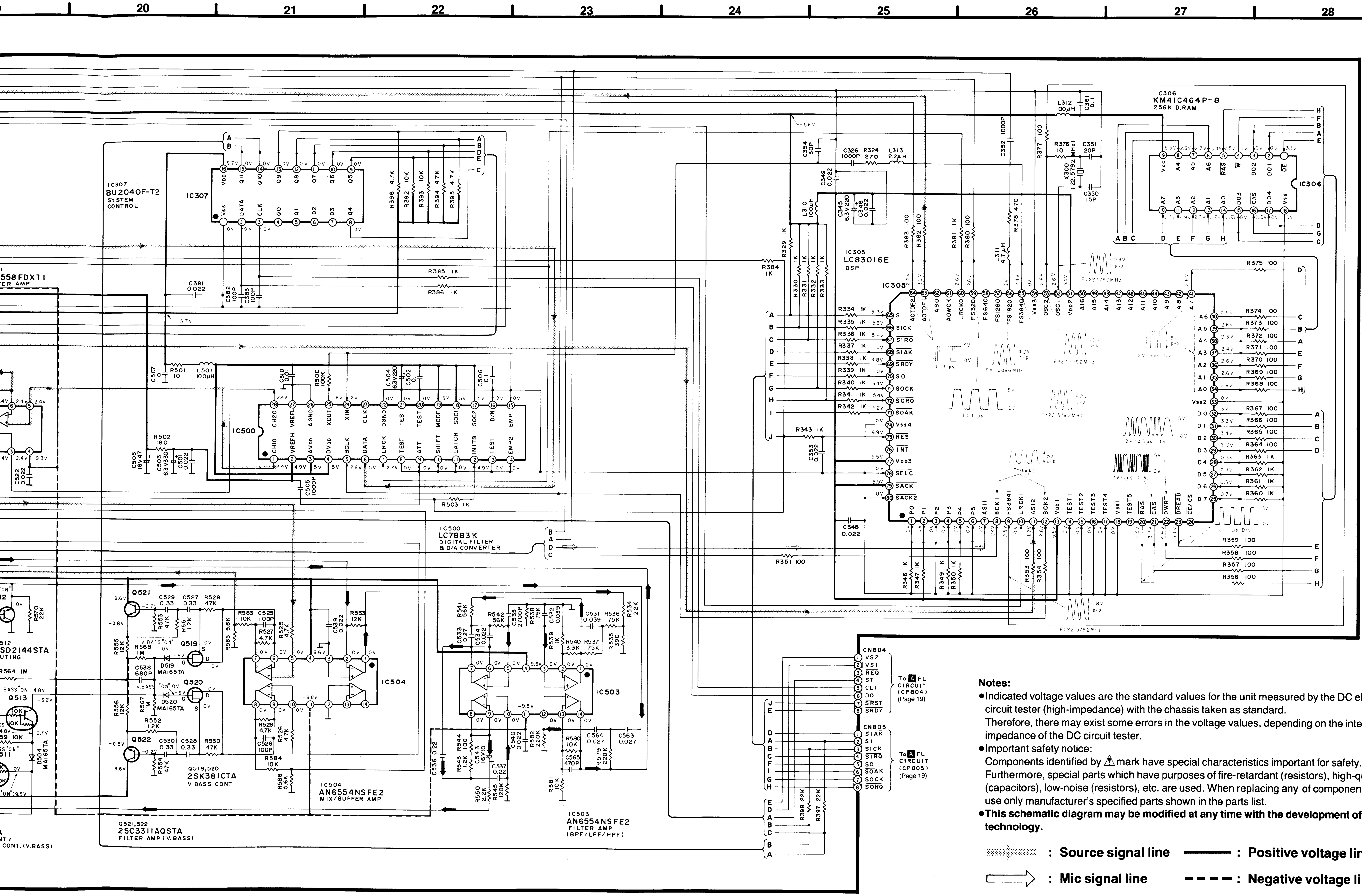
■ SCHEMATIC DIAGRAM •MAIN CIRCUIT for (GC) area (Parts list on pages 31~35.)


D MAIN CIRCUIT For (GC) area.
E MIC AMP CIRCUIT For (GC) area.
AUDIO
VIDEO
PHONO
DAT
REC(OUT)
PLAY(IN)
VCR
OUT
IN
VDP
JK201
JK202
JK203
IC101 AN6558SFE2 PHONO EQ AMP
POWER SUPPLY POINT
AC
GND
Q700,701 2SD2037DEFTA REGULATOR
Q703,704 2SD1762EF REGULATOR
Q702 2SB1357DEFTA REGULATOR
Q705 KSB564ACYGTA REGULATOR
PT701
TP701
TP702
IC201 TC9164N INPUT SELECTOR
IC701 LA5608M-TE-L BUS LINE DRIVE/RESET/HALT
IC202 BA4558FDXT1 BUFFER AMP
V.BASS SIGNAL
Q514 UN4211TA MUTING CONT.
Q516 UN4115TA MUTING CONT.
Q515 2SC3311AQSTA MUTING CONT.
Q517,518 2SC3327ABTP MUTING
IC506 BA4558FDXT1 BUFFER AMP
To SA-CH750 (JK201)
JK101
IC901 MC14052BFR2 VIDEO SELECTOR
SOURCE SIGNAL(Lch)
Q902,903 2SC3311AQSTA VIDEO AMP
Q901 2SA1309AQSTA VIDEO AMP
JK901
TV MONITOR OUT
CP601
CN601
CN806
CN807
To A FL CIRCUIT (CP806) (Page 19)
To A FL CIRCUIT (CP807) (Page 19)
IC601 MN8305S MIC A/D CONVERTER
1 2 3 4 5 6 7 8 9 10
A B C D E F


5
6
7
8
9
10
11
12
13
14
IC201 TC9164N INPUT SELECTOR
IC202 BA4558FDXT1 BUFFER AMP
IC301 CS5339-KP A/D CONVERTER
IC302 TC74HC123AFT MONOSTABLE MULTIVIBRATOR
IC701 LA5608M-TE-L BUS LINE DRIVE/RESET/HALT
Q700
Q701
Q702
Q703,704 2SD1762EF REGULATOR
Q702 2SB1357DEFTA REGULATOR
Q705 KSB564ACYGTA REGULATOR
Q514 UN4211TA MUTING CONT.
Q516 UN4115TA MUTING CONT.
Q515 2SC3311AQSTA MUTING CONT.
Q517,518 2SC3327ABTP MUTING
IC506 BA4558FDXT1 BUFFER AMP
IC506
Q514
Q515
Q516
Q517
Q518
V.BASS SIGNAL
CP601
CN601
CN602
CN806
CN807
IC601 MN8305S MIC A/D CONVERTER
IC600 BA4558FDXT1 BUFFER AMP
IC600
IC601
To A FL CIRCUIT (CP806) (Page 19)
To A FL CIRCUIT (CP807) (Page 19)
FL1
FL2
RST
HALT
BCO
BDO
BCI
BDI
-VP
VREF
VDD
D.GND
A.GND
MIC
-B
+B
D903 MA165TA
R906 1.5K
R905 2.2K
R908 1/2W82
R907 1/2W68
C903 16V47
C614 0.01
R705 1/4W4.7
R707 330
R706 1K
R708 470
R710 1W39
R711 1W39
R713 0.47
R714 0.47
R715 1/4W6.8
R716 560
R722 1/4W 1K
C715 0.01
C716 10V100
C717 0.01
C718 16V10
C719 6.3V1000
D707 MA4056MTA
D708 MA4062MTA
D713 1SS291TA
D712 MA4043MTA
R201 1K
R202 1K
R203 220K
R204 220K
R205 5.6K
R206 5.6K
R207 5.6K
R208 5.6K
R215 22K
R216 22K
R217 6.8K
R218 6.8K
R219 100
R220 100
R221 22K
R222 22K
R223 2.2K
R224 2.2K
R301 2.2K
R302 2.2K
C201 16V10
C202 16V10
C203 30P
C204 30P
C205 100P
C206 100P
C207 16V10
C208 16V10
C209 0.022
C210 0.022
C211 6800P
C212 6800P
C231 0.01
C252 0.01
C319 1000P
C301 1000P
C302 1000P
C312 6.3V100
R306 56
R307 100
R308 100
R309 10
R310 2.2K
R311 10
R312 120
R313 18K
R315 18K
R316 220K
R317 1K
L301 100μH
L302 10μH
L303 12μH
C303 16V10
C304 0.022
C305 16V10
C306 0.022
C307 0.022
C308 0.022
C309 6.3V100
C310 0.01
C313 0.022
C314 16V10
C315 50V1
C316 50V1
C317 0.022
D301 MA4051MTA
D303 MA165TA
R303 1/2W82
R589 10K
R591 560
R592 560
R565 10K
R566 10K
R587 10K
R588 10K
R590 10K
R593 56K
R594 56K
R595 1K
R596 1K
R597 100K
R598 18K
R599 22K
R547 220
R548 220
R558 1K
R727 10
R728 47
C567 470P
C568 470P
C569 680P
C570 680P
C571 16V10
C572 16V10
C573 16V10
C574 16V10
C575 0.068
C576 0.068
C577 0.022
C578 0.022
C579 6.3V47
C580 10V220
C725 0.1
C726 1000P
C727 50V0.47
C728 1000P
R601 10
R602 10
R603 10
R606 1K
R607 390
R608 390
R609 390
R610 1K
R611 82K
R612 82K
L601 100μH
L602 100μH
L603 100μH
C601 0.022
C602 0.022
C603 16V10
C604 16V10
C605 16V10
C606 0.022
C607 0.022
C609 16V10
C611 470P
C612 470P
R413 4.7K
R414 4.7K
R415 1.5K
R416 1.5K
R417 56K
R418 56K
R419 82K
R420 82K
R421 18K
R422 18K
R424 82K
C415 16V10
C416 16V10
C417 4700P
C418 4700P
C419 0.022
C420 0.022
-9.8V
9.6V
5.7V
5V
5.6V
4.9V
-30.6V

E MIC AMP CIRCUIT For [GC] area.


15
16
17
18
19
20
21
22
23
24
25
IC303
TC74HC00AFT1
NAND GATE
IC304
MC74HCU04FEL
INVERTER
IC307
BU2040F-T2
SYSTEM CONTROL
IC305
LC83016E
DSP
IC501
BA4558FDXT1
BUFFER AMP
IC502
AN6554NSFE2
L.P. FILTER/BUFFER AMP
IC500
LC7883K
DIGITAL FILTER & D/A CONVERTER
Q501,502
UN4115TA
GAIN CONT.
Q503~506
2SD2144STA
GAIN CONTROL
D304 MA165TA
D502 MA165TA
D503 MA165TA
CP602
Q502
Q501
Q508
Q509
Q508,509
UN4211TA
V.BASS CONT.
IC505
M51134FPE2
SUB HARMONIZER (V.BASS)
WAVEFORM SHAPING
VCA
ENVELOPE DETECTOR
DIFFERENCE CIRCUIT
Vref
1/2 FREQUENCY DEMULTIPLIER
FREQUENCY COMPONENT ABSTRACT
POWER SUPPLY CIRCUIT
Q512
2SD2144STA
MUTING
Q513
Q511
Q511,513
UN4111TA
MUTING CONT./SWITCHING CONT.(V.BASS)
D501 MA165TA
D504 MA165TA
Q521
Q522
Q519
Q520
D519 MA165TA
D520 MA165TA
Q519,520
2SK381CTA
V.BASS CONT.
Q521,522
2SC3311AQSTA
FILTER AMP (V.BASS)
IC504
AN6554NSFE2
MIX/BUFFER AMP
IC503
AN6554NSFE2
FILTER AMP (BPF/LPF/HPF)
CN804
VS2
VS1
REQ
ST
CL1
DO
SRST
SRDY
CN805
STAK
SI
SICK
SIRQ
SO
SOAK
SOCK
SORQ


20
21
22
23
24
25
26
27
28
29
IC307
BU2040F-T2
SYSTEM CONTROL
IC500
LC7883K
DIGITAL FILTER & D/A CONVERTER
IC305
LC83016E
DSP
IC306
KM41C464P-8
256K D.RAM
IC504
AN6554NSFE2
MIX/BUFFER AMP
IC503
AN6554NSFE2
FILTER AMP (BPF/LPF/HPF)
Q519,520
2SK381CTA
V.BASS CONT.
Q521,522
2SC3311AQSTA
FILTER AMP (V.BASS)
SD2144STA
MA165TA
CN804
VS2
VS1
REQ
ST
CL1
DO
SRST
SRDY
To A FL CIRCUIT (CP804) (Page 19)
CN805
SIAK
SI
SICK
SIRQ
SO
SOAK
SOCK
SORQ
To A FL CIRCUIT (CP805) (Page 19)
F:22.5792MHz

Notes:

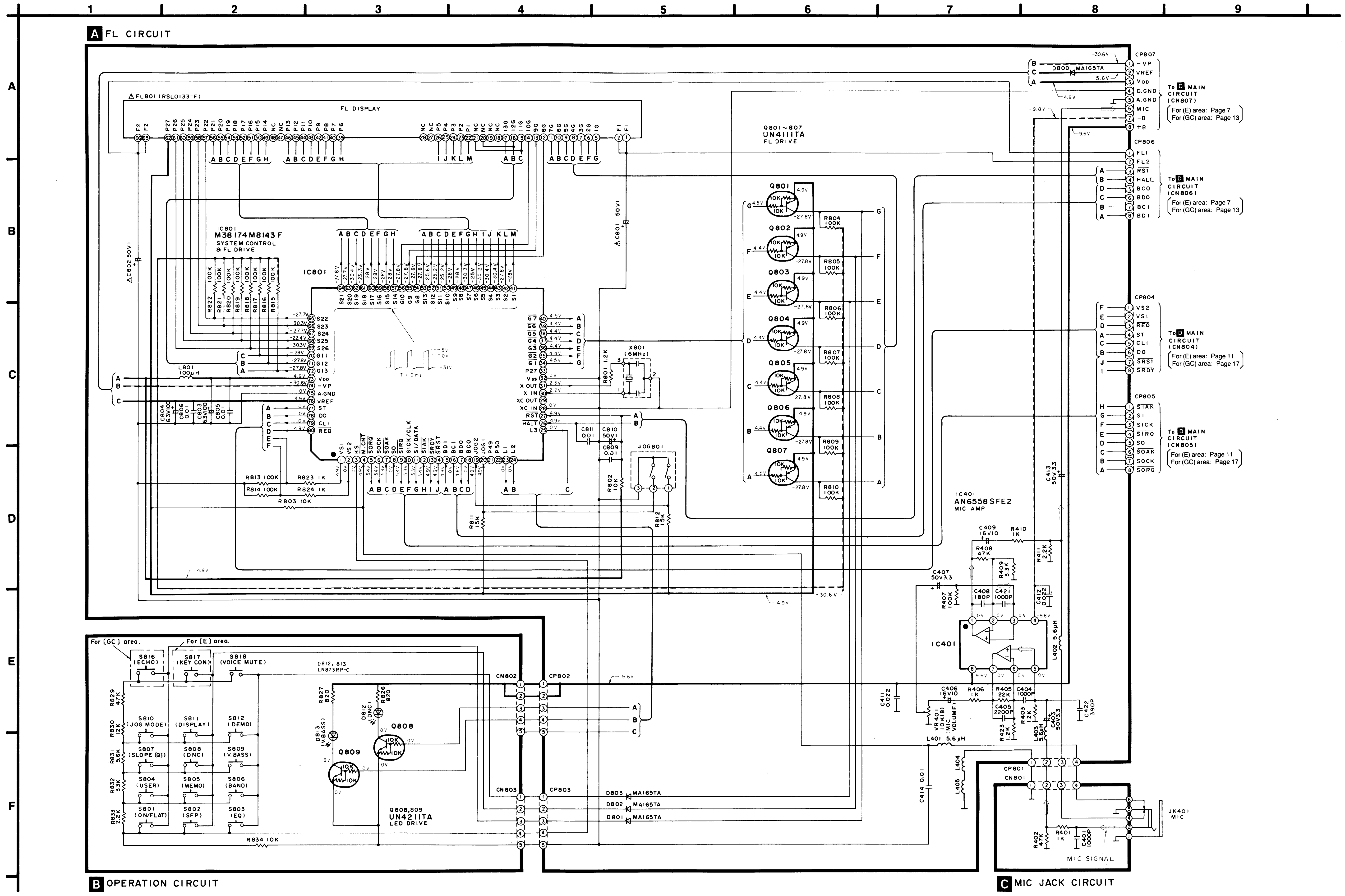
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- **This schematic diagram may be modified at any time with the development of new technology.**

▨ : **Source signal line** —— : **Positive voltage line**

⇨ : **Mic signal line** - - - - : **Negative voltage line**

➡ : **V. Bass signal line**

■ SCHEMATIC DIAGRAM •FL, OPERATION and MIC JACK CIRCUIT (Parts list on pages 31~35.)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
A FL CIRCUIT
△FL801 (RSL0133-F)
FL DISPLAY
IC801
M38174M8143F
SYSTEM CONTROL & FL DRIVE
Q801~807
UN4111TA
FL DRIVE
X801 (6MHz)
JOG801
L801 100μH
△C801 50V1
△C802 50V1
D800 MA165TA
CP807
-VP
VREF
VDD
D.GND
A.GND
MIC
-B
+B
To D MAIN CIRCUIT (CN807)
For (E) area: Page 7
For (GC) area: Page 13
CP806
FL1
FL2
RST
HALT
BCO
BDO
BC1
BD1
To D MAIN CIRCUIT (CN806)
For (E) area: Page 7
For (GC) area: Page 13
CP804
VS2
VS1
REQ
ST
CLI
DO
SRST
SRDY
To D MAIN CIRCUIT (CN804)
For (E) area: Page 11
For (GC) area: Page 17
CP805
STAR
SI
SICK
SIRQ
SO
SOAK
SOCK
SORQ
To D MAIN CIRCUIT (CN805)
For (E) area: Page 11
For (GC) area: Page 17
IC401
AN6558SFE2
MIC AMP
B OPERATION CIRCUIT
For (GC) area.
For (E) area.
S816 (ECHO)
S817 (KEY CON)
S818 (VOICE MUTE)
S810 (JOG MODE)
S811 (DISPLAY)
S812 (DEMO)
S807 (SLOPE (Q))
S808 (DNC)
S809 (V.BASS)
S804 (USER)
S805 (MEMO)
S806 (BAND)
S801 (ON/FLAT)
S802 (SFP)
S803 (EQ)
R834 10K
D812, 813
LN873RP-C
D812 (DNC)
D813 (V.BASS)
Q808
Q809
Q808,809
UN4211TA
LED DRIVE
CN802
CP802
CN803
CP803
D803 MA165TA
D802 MA165TA
D801 MA165TA
VR401 10K(B) (MIC VOLUME)
L401 5.6μH
L402 5.6μH
CP801
CN801
C MIC JACK CIRCUIT
JK401 MIC
MIC SIGNAL
T 1.10ms

Notes:
- •S801 : ON
- •S802 : SF
- •S803 : EQ
- •S804 : Us
- •S805 : Me
- •S806 : Fre
- •S807 : Slo
- •S808 : Dig
- •S809 : V.
- •S810 : Jog
- •S811 : Dis
- •S812 : De
- •S816 : Ec
- •S817 : Key
- •S818 : Vo

•Indicated volt
chassis taken
Therefore, the

•Important saf
Components
Furthermore,
are used. Wh

•Caution!
IC and LSI ar
Secondary tr
Cover the par
Ground the s
Put a conduct
Do not touch

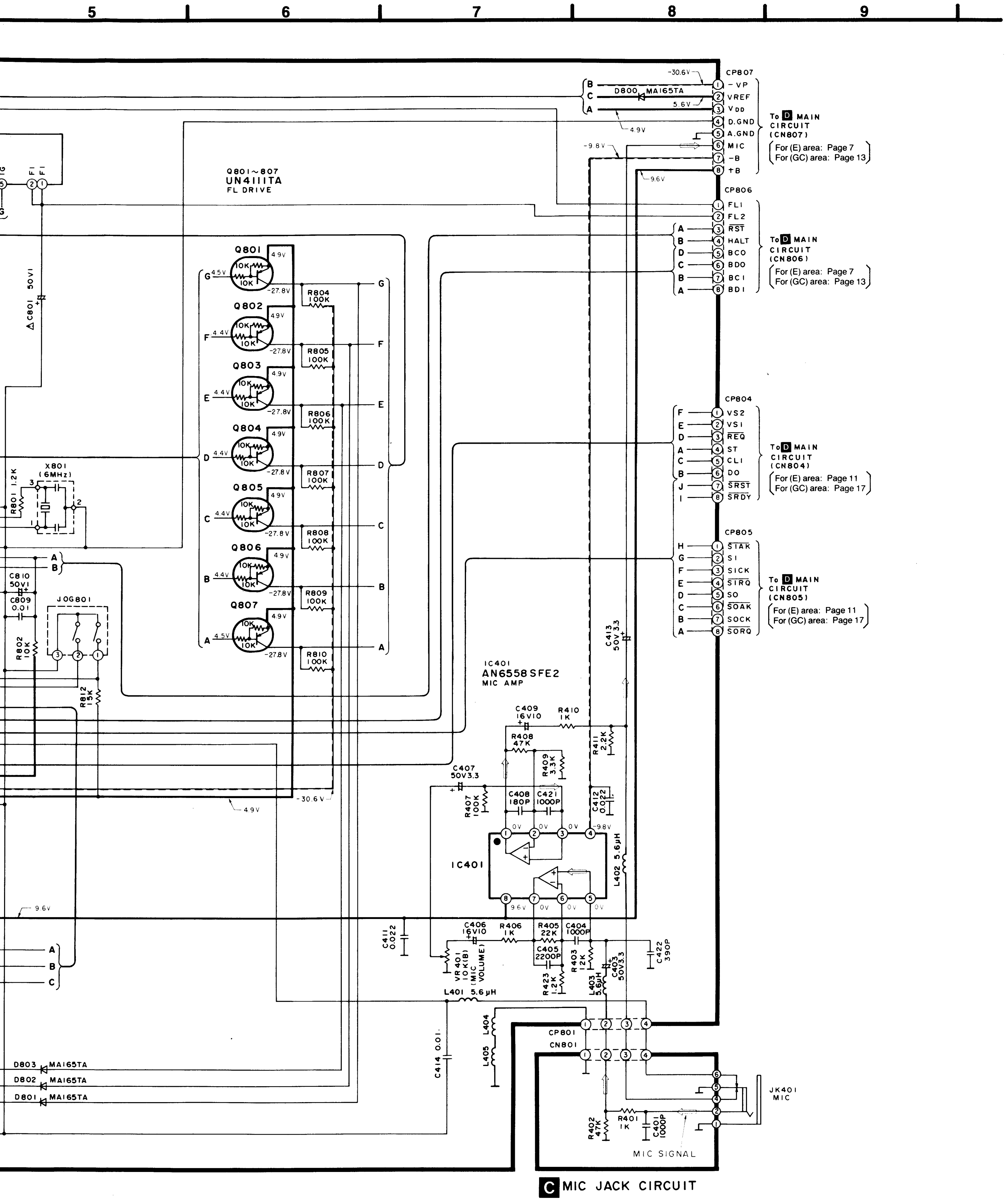
•This schema

—— : **P**

- - - - : **N**

⇨ : **M**

on pages 31~35.)


5
6
7
8
9
Q801~807
UN4111TA
FL DRIVE
Q801
Q802
Q803
Q804
Q805
Q806
Q807
R804 100K
R805 100K
R806 100K
R807 100K
R808 100K
R809 100K
R810 100K
4.9V
-27.8V
-30.6V
-9.6V
9.6V
D800 MA165TA
CP807
-VP
VREF
VDD
D.GND
A.GND
MIC
-B
+B
To D MAIN CIRCUIT (CN807)
For (E) area: Page 7
For (GC) area: Page 13
CP806
FL1
FL2
RST
HALT
BCO
BDO
BCI
BDI
To D MAIN CIRCUIT (CN806)
For (E) area: Page 7
For (GC) area: Page 13
CP804
VS2
VS1
REQ
ST
CLI
DO
SRST
SRDY
To D MAIN CIRCUIT (CN804)
For (E) area: Page 11
For (GC) area: Page 17
CP805
STAK
SI
SICK
STRQ
SO
SOAK
SOCK
SORQ
To D MAIN CIRCUIT (CN805)
For (E) area: Page 11
For (GC) area: Page 17
C801 50V1
X801 (6MHz)
R801 1.2K
C810 50V1
C809 0.01
JOG801
R802 10K
R812 15K
IC401
AN6558SFE2
MIC AMP
C409 16V10
R410 1K
R408 47K
R409 3.3K
R411 2.2K
C413 50V3.3
C407 50V3.3
R407 100K
C408 180P
C421 1000P
C412 0.022
L402 5.6μH
C411 0.022
C406 16V10
R406 1K
R405 22K
C404 1000P
C405 2200P
R403 12K
R423 1.2K
L403 5.6μH
C403 50V3.3
C422 390P
VR401 10K(B) (MIC VOLUME)
L401 5.6μH
L404
L405
C414 0.01
CP801
CN801
D803 MA165TA
D802 MA165TA
D801 MA165TA
JK401 MIC
R402 47K
R401 1K
C401 1000P
MIC SIGNAL
C MIC JACK CIRCUIT

Notes:

- ●S801 : ON/FLAT switch (ON/FLAT)
- ●S802 : SFP mode switch (SFP)
- ●S803 : EQ mode switch (EQ)
- ●S804 : User switch (USER)
- ●S805 : Memory switch (MEMO)
- ●S806 : Frequency band select switch (BAND)
- ●S807 : Slope (Q) select switch [SLOPE (Q)]
- ●S808 : Digital noise cleaner switch (DNC)
- ●S809 : V. Bass switch (V. BASS)
- ●S810 : Jog mode switch (JOG MODE)
- ●S811 : Display mode select switch (DISPLAY, -SPECTRUM, –MODE)
- ●S812 : Demonstration switch (DEMO)
- ●S816 : Echo switch (ECHO) <**For (GC) area**>
- ●S817 : Key control switch (KEY CON) <**For (E) area**>
- ●S818 : Voice mute switch (VOICE MUTE)

●Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

●Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

●**Caution!**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

●**This schematic diagram may be modified at any time with the development of new technology.**

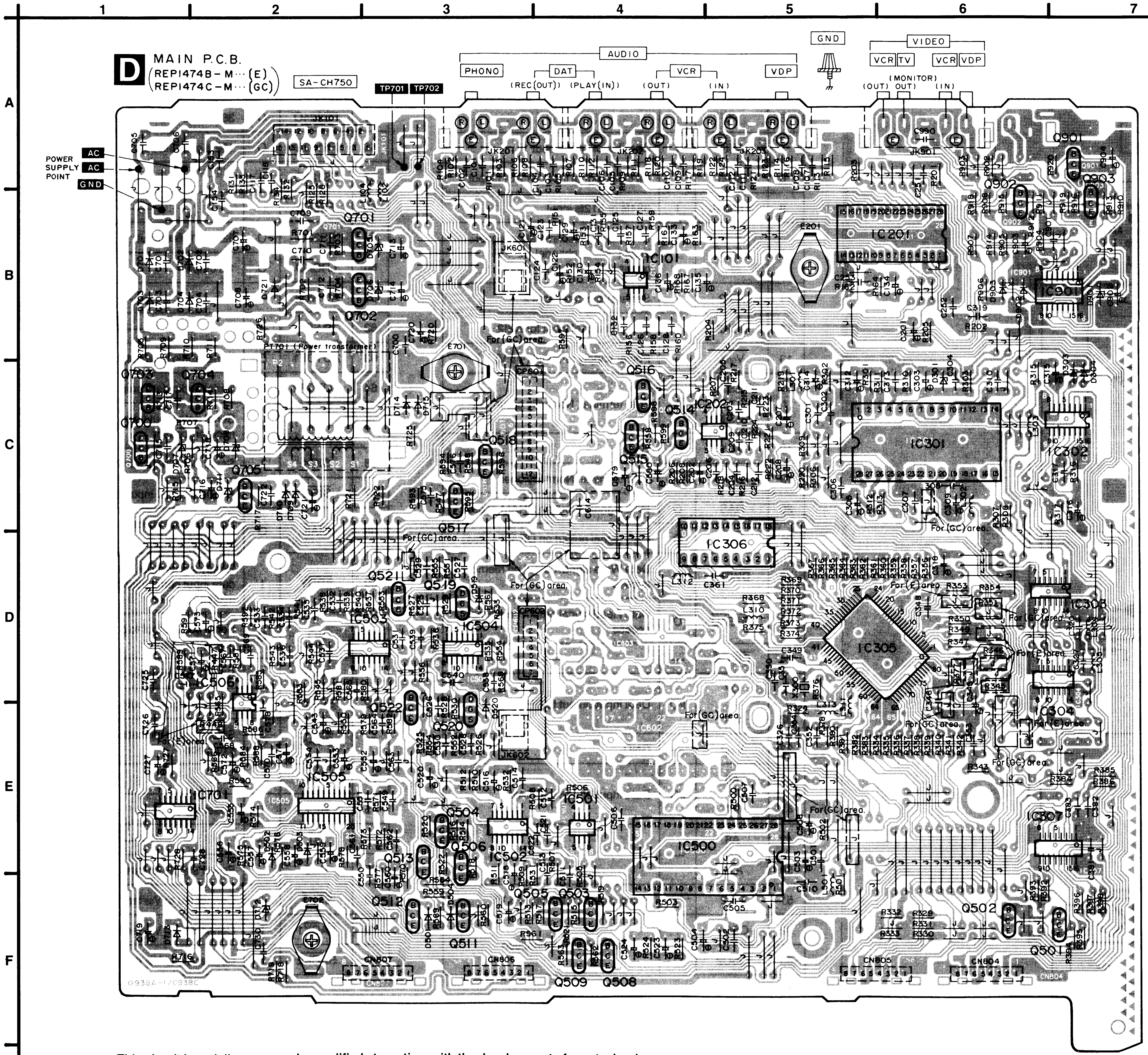
——— : Positive voltage line

- - - - : Negative voltage line

⇨ : Mic signal line

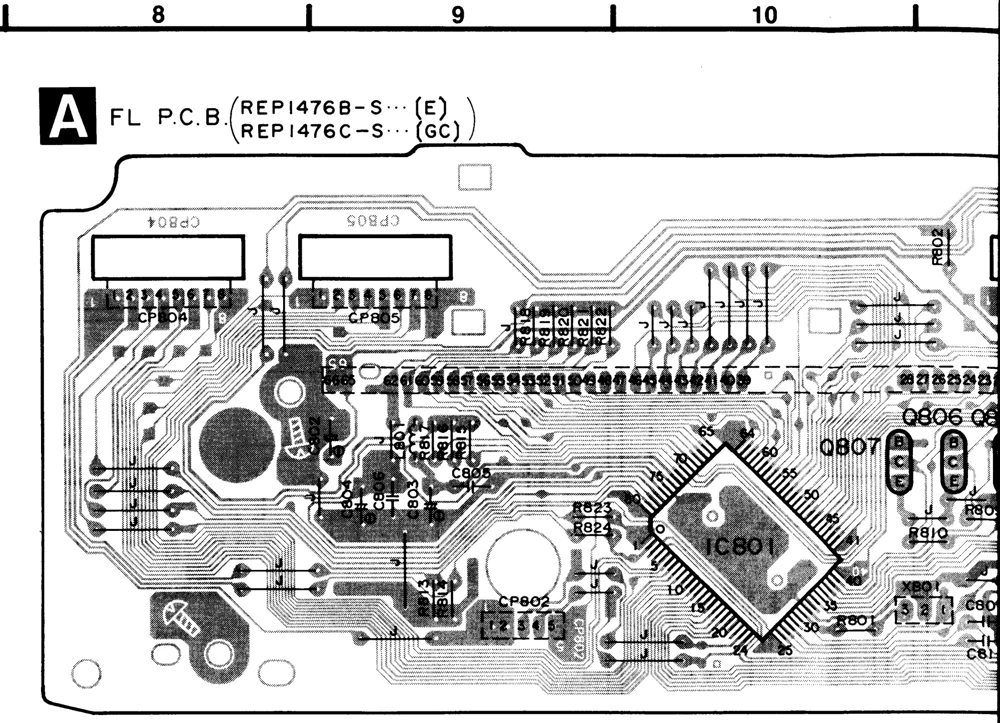
■ PRINTED CIRCUIT BOARD DIAGRAM

D MAIN P.C.B. (REP1474B-M···(E) REP1474C-M···(GC))

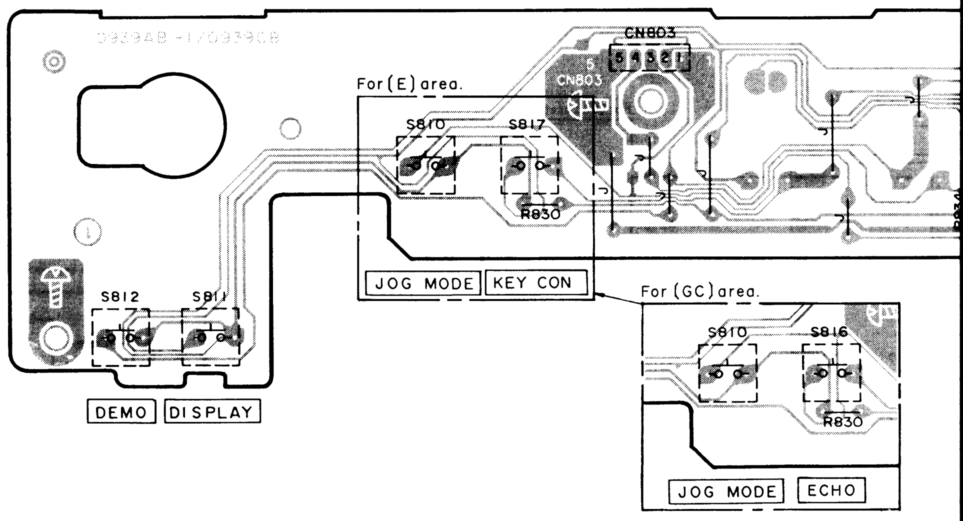

1
2
3
4
5
6
7
A
B
C
D
E
F
SA-CH750
TP701
TP702
AUDIO
PHONO
DAT
(REC(OUT)) (PLAY(IN))
VCR
(OUT) (IN)
VDP
GND
VIDEO
VCR TV
VCR VDP
(MONITOR)
(OUT) OUT) (IN)
POWER SUPPLY POINT
AC
AC
GND
PT701 (Power transformer)
For (GC) area.
For (E) area.
IC101
IC201
IC301
IC302
IC305
IC306
IC307
IC308
IC500
IC501
IC502
IC503
IC504
IC505
IC701
IC901
Q501
Q502
Q503
Q504
Q505
Q506
Q508
Q509
Q511
Q512
Q513
Q514
Q515
Q516
Q517
Q518
Q519
Q521
Q522
Q701
Q702
Q703
Q704
Q705
Q706
Q901
Q902
Q903
JK201
JK202
JK203
JK501
JK601
JK602
CN804
CN805
CN806
CN807

●This circuit board diagram may be modified at any time with the development of new technology.

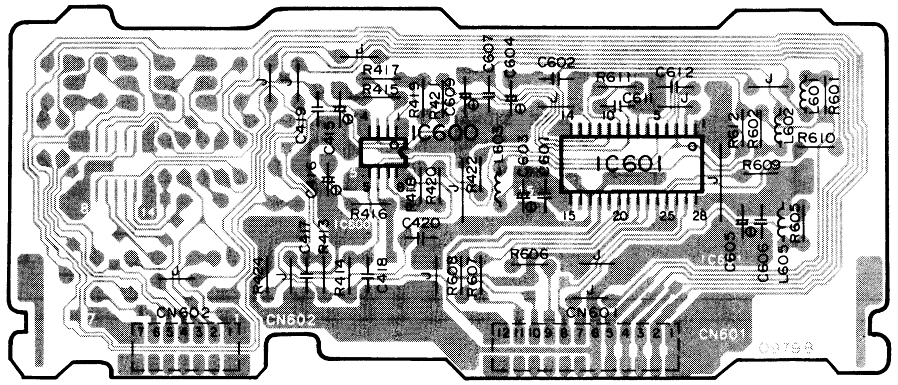
A FL P.C.B. (REP1476B-S···(E) REP1476C-S···(GC))

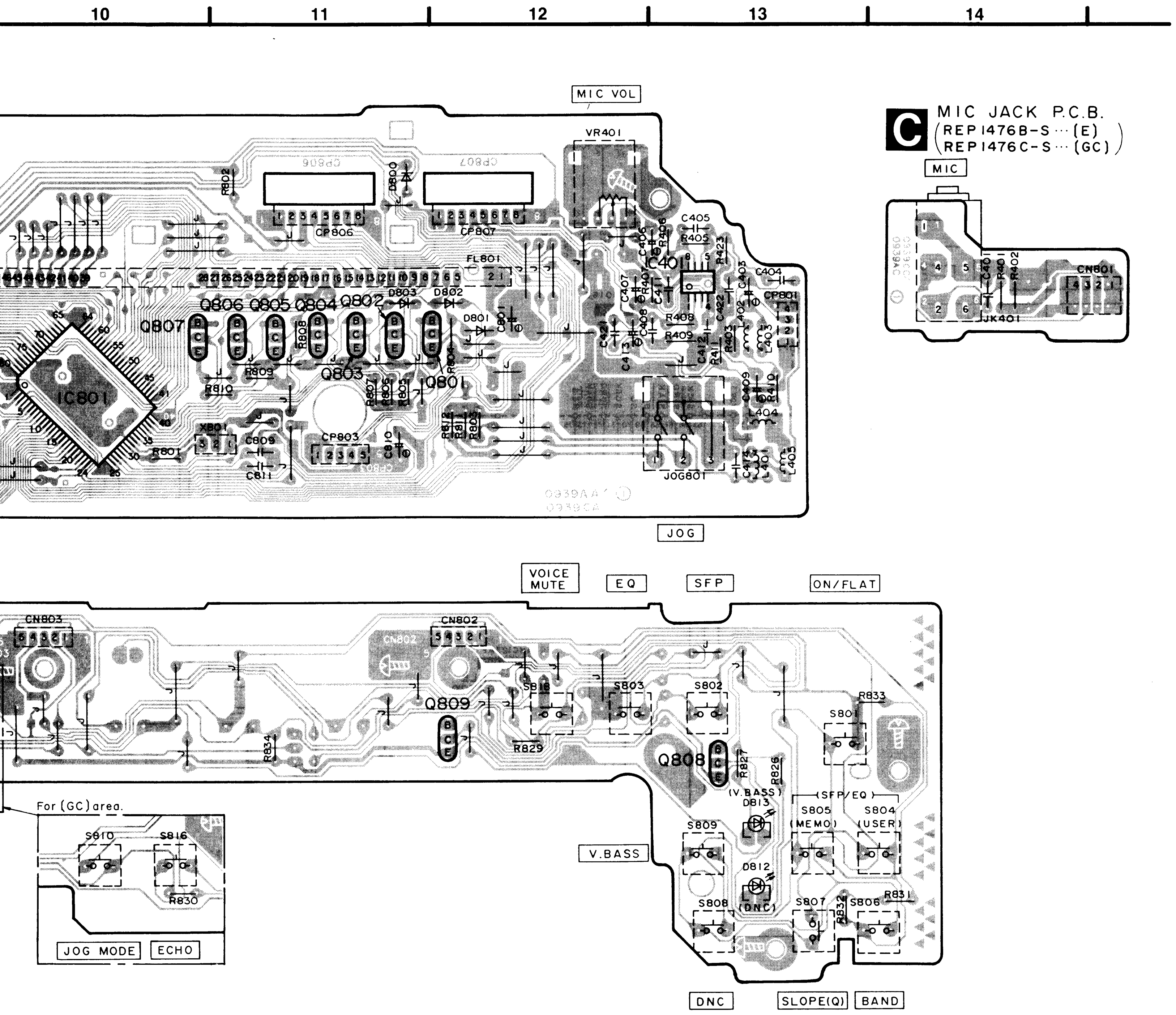

8
9
10
CP804
CP805
CP802
IC801
Q806
Q807
X801

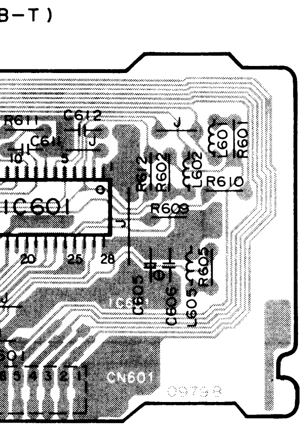
B OPERATION P.C.B. (REP1476B-S···(E) REP1476C-S···(GC))


For (E) area.
CN803
S810
S817
R830
S812
S811
DEMO
DISPLAY
JOG MODE
KEY CON
For (GC) area.
S810
S816
R830
JOG MODE
ECHO

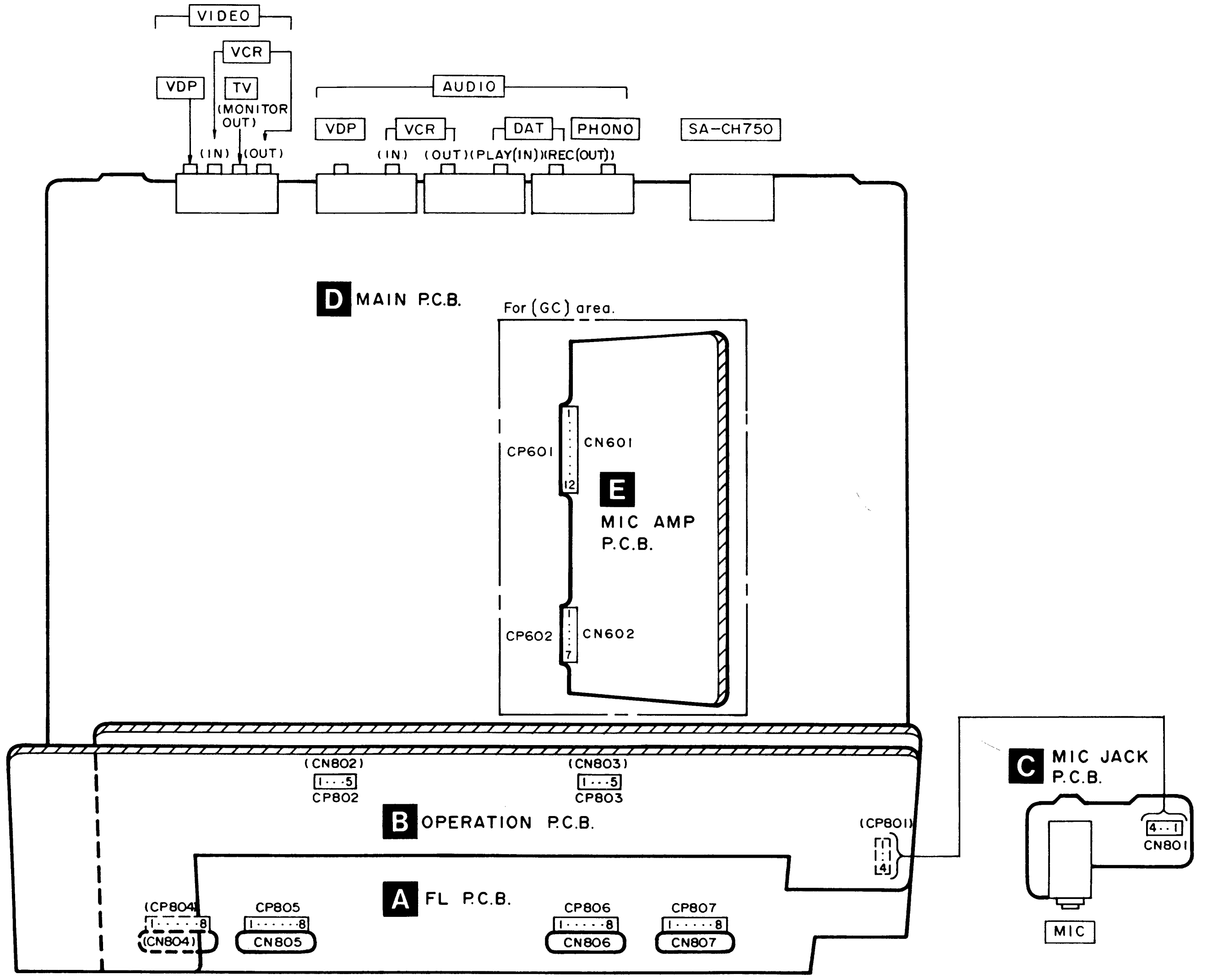
E MIC AMP P.C.B. For (GC) area. (REP1512B-T)


IC600
IC601
CN602
CN601

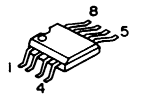
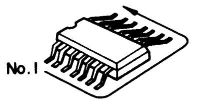
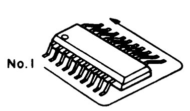
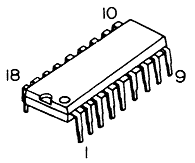
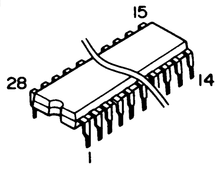
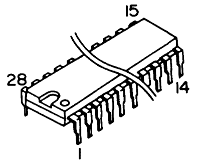
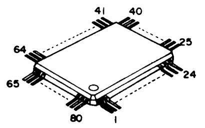
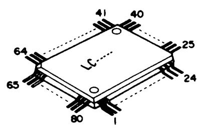
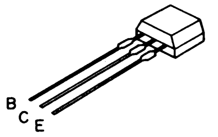
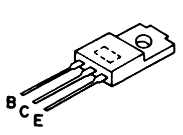
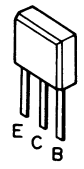
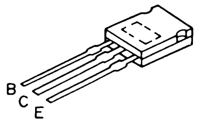
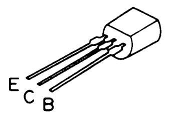
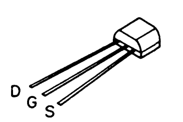
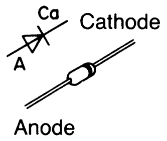
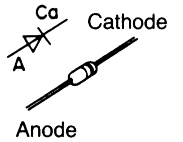
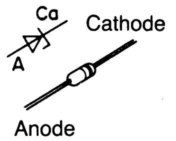
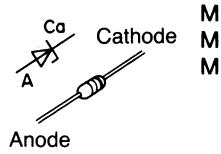
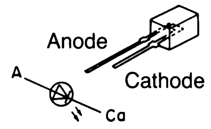

10
11
12
13
14
MIC VOL
VR401
CP806
CP807
C MIC JACK P.C.B.
(REP1476B-S···(E)
REP1476C-S···(GC))
MIC
JK401
CN801
IC801
Q807
Q806
Q805
Q804
Q802
Q803
Q801
FL801
CP801
CP803
X801
JOG801
JOG
VOICE MUTE
EQ
SFP
ON/FLAT
CN803
CN802
Q809
Q808
S815
S803
S802
S801
(V.BASS)
D813
(SFP/EQ)
S805 (MEMO)
S804 (USER)
S809
D812
(DNC)
S808
S807
S806
V.BASS
For (GC) area.
S810
S816
JOG MODE
ECHO
DNC
SLOPE(Q)
BAND


B-T)
IC601
CN601

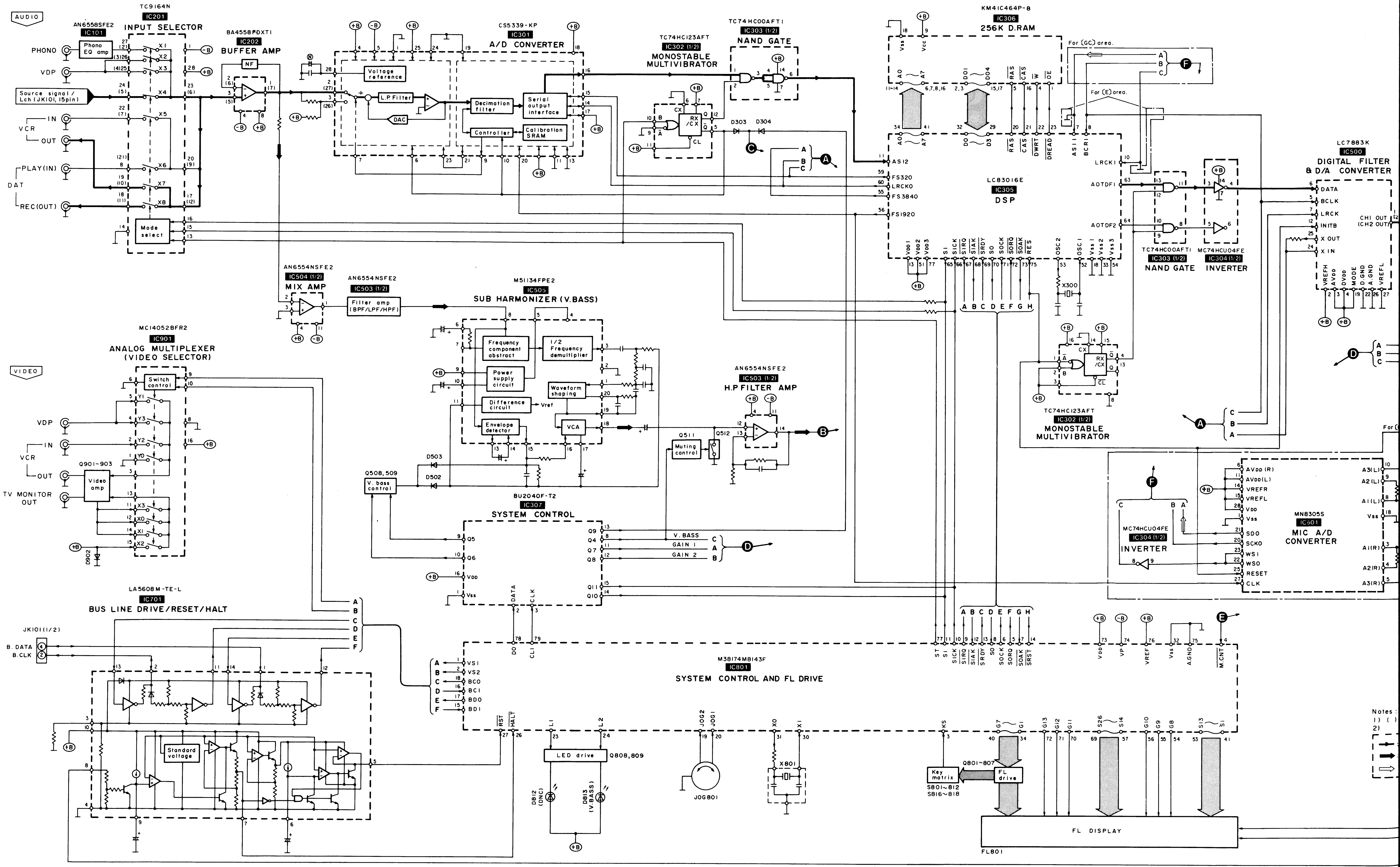
■ WIRING CONNECTION DIAGRAM

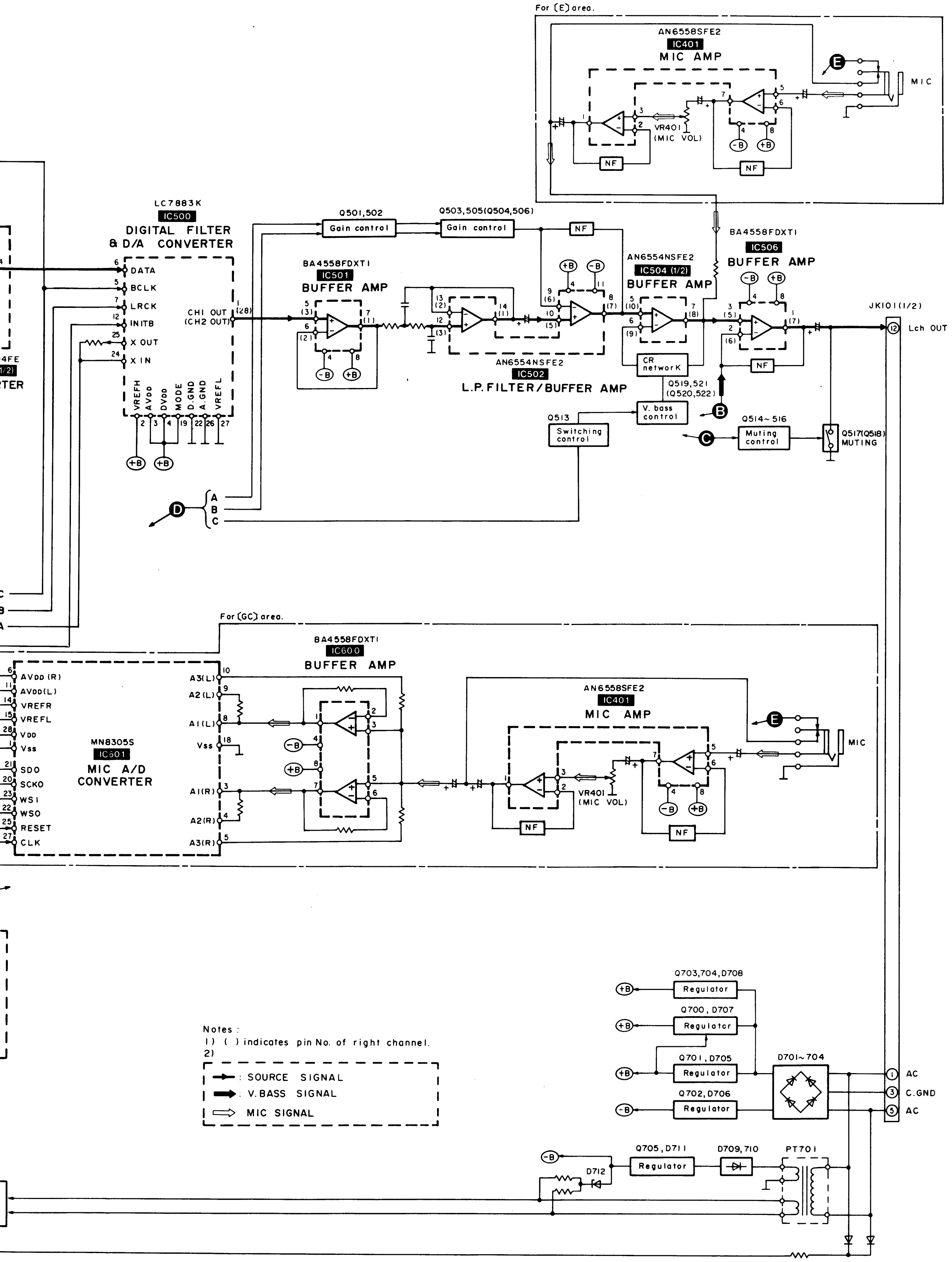

VIDEO
VCR
VDP
TV
(MONITOR OUT)
(IN)
(OUT)
AUDIO
VDP
VCR
DAT
PHONO
(IN)
(OUT)
(PLAY(IN))
(REC(OUT))
SA-CH750
D MAIN P.C.B.
For (GC) area.
CP601
CN601
E MIC AMP P.C.B.
CP602
CN602
(CN802) CP802
(CN803) CP803
B OPERATION P.C.B.
(CP801)
C MIC JACK P.C.B.
CN801
MIC
(CP804) (CN804)
CP805 CN805
A FL P.C.B.
CP806 CN806
CP807 CN807

•Terminal guide of IC's, transistors and diodes

				BA4558FDXT1 	TC74HC00AFT1 14Pin TC74HC123AFT 16Pin 		AN6558SFE2 8Pin AN6554NSFE2 14Pin LA5608M-TE-L 14Pin MC74HCU04FEL 14Pin BU2040F-T2 16Pin MC14052BFR2 16Pin M51134FPE2 20Pin MN8305S 28Pin
KM41C464P-8 	TC9164N 	CS5339-KP LC7883K 	M38174M8143F  41 40 64 25 65 24 80 1	LC83016E  41 40 64 25 65 24 80 1	2SC3327ABTP 2SD2144STA 	2SD1762EF 	2SA1309AQSTA 2SC3311AQSTA UN4111TA UN4115TA UN4211TA 
2SB1357DEFTA 2SD2037DEFTA 	KSB564ACYGTA 	2SK381CTA 	MA165TA 1SR35200TB  Ca Cathode A Anode	1SS291TA  Ca Cathode A Anode	MA4100MTA MA4300MTA  Ca Cathode A Anode	MA4043MTA MA4051MTA MA4056MTA MA4062MTA  Ca Cathode A Anode	LN873RP-C  Anode A Cathode Ca

■ BLOCK DIAGRAM


AUDIO
AN6558SFE2
IC101
Phono EQ amp
PHONO
VDP
Source signal / Lch (JK101, 15pin)
VCR
IN
OUT
DAT
PLAY(IN)
REC(OUT)
TC9164N
IC201
INPUT SELECTOR
Mode select
BA4558FDXT1
IC202
BUFFER AMP
NF
CS5339-KP
IC301
A/D CONVERTER
Voltage reference
L.P.Filter
DAC
Decimation filter
Serial output interface
Controller
Calibration SRAM
TC74HC123AFT
IC302 (1/2)
MONOSTABLE MULTIVIBRATOR
TC74HC00AFT1
IC303 (1/2)
NAND GATE
D303
D304
KM41C464P-8
IC306
256K D.RAM
For (GC) area.
For (E) area.
LC83016E
IC305
DSP
AS12
FS320
LRCKO
FS3840
FS1920
LRCK1
AOTDF1
AOTDF2
X300
LC7883K
IC500
DIGITAL FILTER & D/A CONVERTER
DATA
BCLK
LRCK
INITB
X OUT
X IN
CH1 OUT (CH2 OUT)
TC74HC00AFT1
IC303 (1/2)
NAND GATE
MC74HCU04FE
IC304 (1/2)
INVERTER
TC74HC123AFT
IC302 (1/2)
MONOSTABLE MULTIVIBRATOR
AN6554NSFE2
IC504 (1/2)
MIX AMP
AN6554NSFE2
IC503 (1/2)
Filter amp (BPF/LPF/HPF)
M51134FPE2
IC505
SUB HARMONIZER (V.BASS)
Frequency component abstract
1/2 Frequency demultiplier
Power supply circuit
Waveform shaping
Difference circuit
Vref
Envelope detector
VCA
D503
D502
Q508, 509
V. bass control
AN6554NSFE2
IC503 (1/2)
H.P FILTER AMP
Q511
Muting control
Q512
BU2040F-T2
IC307
SYSTEM CONTROL
V. BASS
GAIN 1
GAIN 2
MN8305S
IC501
MIC A/D CONVERTER
MC74HCU04FE
IC304 (1/2)
INVERTER
VIDEO
MC14052BFR2
IC901
ANALOG MULTIPLEXER (VIDEO SELECTOR)
Switch control
VDP
VCR
IN
OUT
TV MONITOR OUT
Q901~903
Video amp
D902
LA5608M-TE-L
IC701
BUS LINE DRIVE/RESET/HALT
JK101 (1/2)
B. DATA
B.CLK
Standard voltage
M38174M8143F
IC801
SYSTEM CONTROL AND FL DRIVE
LED drive
Q808, 809
D812 (DNC)
D813 (V.BASS)
JOG801
X801
Key matrix
S801~812
S816~818
Q801~807
FL drive
FL DISPLAY
FL801
Notes:


For (E) area.
AN6558SFE2
IC401
MIC AMP
VR401 (MIC VOL)
NF
MIC
LC7883K
IC500
DIGITAL FILTER & D/A CONVERTER
DATA
BCLK
LRCK
INITB
X OUT
X IN
CH1 OUT (CH2 OUT)
VREFH
AVDD
DVDD
MODE
D.GND
A.GND
VREFL
Q501,502
Gain control
Q503,505(Q504,506)
Gain control
BA4558FDXTI
IC501
BUFFER AMP
AN6554NSFE2
IC502
L.P.FILTER/BUFFER AMP
AN6554NSFE2
IC504 (1/2)
BUFFER AMP
CR network
BA4558FDXTI
IC506
BUFFER AMP
Q519,521 (Q520,522)
V. bass control
Q513
Switching control
Q514~516
Muting control
Q517(Q518) MUTING
JK101(1/2)
Lch OUT
For (GC) area.
BA4558FDXTI
IC600
BUFFER AMP
MN83055
IC501
MIC A/D CONVERTER
AVDD (R)
AVDD (L)
VREFR
VREFL
VDD
VSS
SDO
SCKO
WSI
WSO
RESET
CLK
A3(L)
A2(L)
A1(L)
VSS
A1(R)
A2(R)
A3(R)
AN6558SFE2
IC401
MIC AMP
VR401 (MIC VOL)
Q703,704,D708
Regulator
Q700, D707
Regulator
Q701,D705
Regulator
Q702,D706
Regulator
D701~704
AC
C.GND
AC
Q705,D711
Regulator
D709,710
PT701
D712

Notes :
1) ( ) indicates pin No. of right channel.
2)
→ : SOURCE SIGNAL
➡ : V.BASS SIGNAL
⇨ : MIC SIGNAL

■ FUNCTION OF IC TERMINALS

•IC305 (LC83016E)

Pin No.	Terminal Name	I/O	Function
1 ≀ 6	P0 ≀ P5	I/O	General-purpose I/O port
7	ASI1	I	Serial audio data input 1
8	BCK1	I	Bit clock signal input for ASI1 input
9	FS384I	I	384fs or 512fs input
10	LRCKI	I	L/R channel discrimination signal input ("H": L channel, "L": R channel)
11	ASI2	I	Serial audio data input 2
12	BCK2	I	Bit clock signal input for ASI2
13	$V_{DD}1$	—	Power supply terminal (+5 V)
14 ≀ 17	TEST1 ≀ TEST4	I	Test terminal, Normally grounded
18	$V_{SS}1$	—	GND
19	TEST5	O	Test terminal, Normally open
20	$\overline{\text{RAS}}$	O	RAS signal output on DRAM access
21	$\overline{\text{CAS}}$	O	CAS signal output on DRAM access
22	$\overline{\text{DWRT}}$	O	Data Write signal output on memory access
23	$\overline{\text{DREAD}}$	O	Data Read signal output on memory access
24	$\overline{\text{CE/CS}}$	—	———
25 ≀ 32	D7 ≀ D0	I/O	Data input/output to DRAM
33	$V_{SS}2$	—	GND
34 ≀ 41	A0 ≀ A7	I/O	Data input/output to DRAM
42 ≀ 50	A8 ≀ A16	—	———
51	$V_{DD}2$	—	Power supply terminal (+5 V)
52	OSC1	I	Crystal oscillator connection
53	OSC2	O	
54	$V_{SS}3$	—	GND
55	FS384O	O	384fs or 512fs output
56	FS192O	O	192fs or 256fs output
57	FS128O	—	———
58	FS64O	—	———
59	FS32O	O	32fs or 16fs output
60	LRCKO	O	1fs output
61	AOWCK	—	———
62	ASO	—	———
63	AOTDF1	O	Serial audio data output 2
64	AOTDF2	O	Serial audio data output 3
65	SI	I	Serial data input from control microprocessor
66	SICK	I	Serial clock input for SI
67	$\overline{\text{SIRQ}}$	I	Request signal input for serial input
68	$\overline{\text{SIAK}}$	O	Signal output indicating serial input execution
69	$\overline{\text{SRDY}}$	I	Ready signal input indicating serial data input completion from control microprocessor
70	SO	O	Serial data output to control microprocessor
71	SOCK	I	Serial clock input for SO
72	$\overline{\text{SORQ}}$	I	Request signal input for serial output
73	$\overline{\text{SOAK}}$	O	Signal output indicating serial output execution
74	$V_{SS}4$	—	GND
75	$\overline{\text{RES}}$	I	Reset signal input
76	$\overline{\text{INT}}$	—	———
77	$V_{DD}3$	—	Power supply terminal (+5 V)
78	$\overline{\text{SELC}}$	I	Connected to V_{SS} terminal
79	$\overline{\text{SACK1}}$	I	Connected to V_{DD} terminal
80	$\overline{\text{SACK2}}$	I	Connected to V_{SS} terminal

•IC500 (LC7883K)

Pin No.	Terminal Name	I/O	Function
1	CH1O	O	DAC CH.1 output terminal (L-ch OUT)
2	VREF H	I	Input terminal for reference voltage "H"
3	AV_{DD}	—	Power supply terminal for analog circuit
4	DV_{DD}	—	Power supply terminal for digital circuit
5	BCLK	I	Bit clock terminal
6	DATA	I	Digital audio data input terminal Bit-serial input from the MSB side
7	LRCK	I	LR clock input terminal LRCK="H" CH1 LRCK="L" CH2
8	TEST	I	Test terminal (Normally "L")
9	ATT	I	Attenuation data input terminal Bit-serial input from the LSB side (Not used)
10	SHIFT	I	Clock input terminal for attenuation data transfer (Not used)
11	LATCH	I	Clock input terminal for attenuation data latch (Not used)
12	INITB	I	Initialization signal input terminal (Normally "H")
13	TEST	I	Test terminal (Normally "L") (Not used)

Pin No.	Terminal Name	I/O	Function
14	EMP2	I	De-emphasis setting terminal
15	EMP1	I	
16	D/N	I	Double speed/normal speed switch terminal (Not used)
17	SOC2	I	Input source selection terminal (PULL DOWN) (Not used)
18	SOC1	I	
19	MODE	I	Operating mode setting terminal (PULL DOWN)
20	TEST	I	Test terminal (Normally "L") (PULL DOWN) (Not used)
21	TEST	I	
22	DGND	—	GND terminal for digital circuit (Not used)
23	CLK	O	Clock output terminal (Not used) 392Fs: 1/2XOUT 384Fs, 448Fs, 512Fs: XOUT
24	XIN	I	Crystal oscillator input terminal
25	XOUT	O	Crystal oscillator output terminal
26	AGND	—	GND terminal for analog circuit
27	VREF L	I	Input terminal for reference voltage "L"
28	CH2O	O	DAC CH-2 output terminal (R-ch OUT)

•IC601 (MN8305S)

Pin No.	Terminal Name	I/O	Function
1	V_{SS}	—	Digital ground terminal
2	AV_{SS} (R)	—	Analog ground terminal for PDM circuit (R ch)
3	A1 (R)	I	R/L channel input terminal for PDM circuit
4	A2 (R)	O	R/L channel output terminal for PDM circuit
5	A3 (R)	O	R/L channel output terminal for PDM circuit
6	AV_{DD} (R)	—	Analog power supply terminal for PDM circuit (R ch)
7	AV_{SS} (L)	—	Analog ground terminal for PDM circuit (L ch)
8	A1 (L)	I	R/L channel input for PDM circuit
9	A2 (L)	O	R/L channel output for PDM circuit
10	A3 (L)	O	R/L channel output for PDM circuit
11	AV_{DD} (L)	—	Analog power supply terminal for PDM circuit (L ch)
12	AV_{SS} (R)	—	Analog ground terminal for PWM output terminal (R ch)
13	PWMR	—	———
14	VREFR	—	Analog power supply terminal for PWM output (R ch)

Pin No.	Terminal Name	I/O	Function
15	VREFL	—	Analog power supply terminal for PWM output (L ch)
16	PWML	—	———
17	AV_{SS} (L)	—	Analog ground terminal for PWM output terminal (L ch)
18	V_{SS}	—	Digital ground terminal
19	FSCTL	I	Sampling frequency (fs) control terminal
20	SCKO	O	Serial clock output terminal
21	SDO	O	Serial data output terminal
22	WSO	O	Word select output terminal
23	WSI	I	Word select input terminal
24	SDI	—	———
25	$\overline{\text{RESET}}$	I	Reset terminal
26	TEST	I	Test terminal
27	CLK	I	Clock input terminal
28	V_{DD}	—	Digital power supply terminal

•IC801 (M38174M8143F)

Pin No.	Terminal Name	I/O	Function
1	VS1	O	Visual selector signal output
2	VS2	O	Visual selector signal output
3	KS	I	Key scan signal input
4	$\overline{\text{M.CNT}}$	I	Microphone presence detect signal input ("L": present, "H": absent)
5	$\overline{\text{SORQ}}$	O	DSP control signal input/output
6	$\overline{\text{SOCK}}$	O	
7	$\overline{\text{SOAK}}$	I	
8	SO	I	
9	$\overline{\text{SIRQ}}$	O	
10	SICK/CLK	O	
11	SI/DATA	O	
12	$\overline{\text{SIAK}}$	I	
13	$\overline{\text{SRDY}}$	O	
14	$\overline{\text{SRST}}$	O	System reset signal output
15	BDI	I	Bus data input
16	BCI	I	Bus clock input
17	BDO	O	Bus data output
18	BCO	O	Bus clock output
19	JOG2	I	Encoder input A
20	JOG1	I	Encoder input B
21	P49	—	———
22	P50	—	———
23	L1	O	D812 (DNR) drive signal output (H: Light)
24	L2	O	D813 (V, BASS) drive signal output (H: Light)
25	L3	O	D814 (PRO-LOGIC) drive signal output (H: Light)

Pin No.	Terminal Name	I/O	Function
26	$\overline{\text{HALT}}$	I	Backup mode detect signal input
27	$\overline{\text{RST}}$	I	Reset signal input
28	XCIN	I	One-time oscillation mode switch signal input
29	XCOUT	—	———
30	XIN	I	Ceramic oscillator signal input (6.00 MHz)
31	XOUT	O	Ceramic oscillator signal output (6.00 MHz)
32	V_{SS}	—	GND
33	P27	—	———
34 ~ 40	$\overline{\text{G1}}$ ~ $\overline{\text{G7}}$	O	FL grid signal output
41 ~ 53	S1 ~ S13	O	FL segment signal output
54 ~ 56	G8 ~ G10	O	FL grid signal output
57 ~ 69	S14 ~ S26	O	FL segment signal output
70 ~ 72	G11 ~ G13	O	FL grid signal output
73	V_{DD}	—	Power supply input (+5 V)
74	−VP	—	Pull-down power supply input
75	A. GND	—	GND
76	VREF	I	Reference voltage input for A/D converter
77	ST	O	Strobe signal output for TC9164N control
78	DO	O	Data output for BU2040/M50194P control
79	CLI	O	Clock signal output for BU2040 control
80	$\overline{\text{REQ}}$	O	Request signal output for M50194P control

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	AN6558SFE2	I. C, BUFFER AMP.	
IC201	TC9164N	I. C, INPUT SELECTOR	
IC202	BA4558FDXT1	I. C, BUFFER AMP.	
IC301	CS5339-KP	I. C, A/D CONVERTER	
IC302	TC74HC123AFT	I. C, MONOST. MULTIVIBRATOR	
IC303	TC74HC00AFT1	I. C, NAND GATE	
IC304	MC74HCU04FEL	I. C, INVERTER	
IC305	LC83016E	I. C, D. S. P.	
IC306	KM41C464P-8	I. C, 256K D-RAM	
IC307	BU2040F-T2	I. C, SYSTEM CONTROL	
IC401	AN6558SFE2	I. C, MIC AMP.	
IC500	LC7883K	I. C, D/A CONVERTER	
IC501	BA4558FDXT1	I. C, BUFFE AMP.	
IC502	AN6554NSFE2	I. C, BUFFE AMP.	
IC503	AN6554NSFE2	I. C, FILTER AMP.	
IC504	AN6554NSFE2	I. C, BUFFER AMP.	
IC505	M51134FPE2	I. C, SUB HARMONIZER	
IC506	BA4558FDXT1	I. C, BUFFER AMP.	
IC600	BA4558FDXT1	I. C, BUFFER AMP.	(GC)
IC601	MN8305S	I. C, A/D CONVERTER	(GC)
IC701	LA5608M-TE-L	I. C, BUS LINE DRIVE/RESET	
IC801	M38174M8143F	I. C, FL DRIVE/SYSTEM CONT.	
IC901	MC14052BFR2	I. C, VIDEO SELECTOR	
		TRANSISTOR(S)	
Q501, 502	UN4115	TRANSISTOR	
Q503-506	2SD2144S	TRANSISTOR	
Q508, 509	UN4211	TRANSISTOR	
Q511	UN4111	TRANSISTOR	
Q512	2SD2144S	TRANSISTOR	
Q513	UN4111	TRANSISTOR	
Q514	UN4211	TRANSISTOR	
Q515	2SC3311A-Q	TRANSISTOR	
Q516	UN4115	TRANSISTOR	
Q517, 518	2SC3327-A	TRANSISTOR	
Q519, 520	2SK381CTA	TRANSISTOR	
Q521, 522	2SC3311A-Q	TRANSISTOR	
Q700, 701	2SD2037DEFTA	TRANSISTOR	
Q702	2SB1357DEFTA	TRANSISTOR	
Q703, 704	2SD1762EF	TRANSISTOR	
Q705	KSB564ACYGTA	TRANSISTOR	
Q801-807	UN4111	TRANSISTOR	
Q808, 809	UN4211	TRANSISTOR	
Q901	2SA1309A-R	TRANSISTOR	
Q902, 903	2SC3311A-Q	TRANSISTOR	
		DIODE(S)	
D301	MA4051MTA	DIODE	
D303, 304	MA165	DIODE	
D501-504	MA165	DIODE	
D519, 520	MA165	DIODE	
D701-704	1SR35200TB	DIODE	⚠
D705, 706	MA4100MTA	DIODE	
D707	MA4056MTA	DIODE	
D708	MA4062MTA	DIODE	
D709, 710	MA165	DIODE	⚠
D711	MA4300M	DIODE	
D712	MA4043M	DIODE	⚠
D713	1SS291TA	DIODE	
D714, 715	MA165	DIODE	⚠
D721	1SR35200TB	DIODE	
D800-803	MA165	DIODE	
D812, 813	LN873RP-C	DIODE	
D901	MA4051MTA	DIODE	
D902, 903	MA165	DIODE	
		VARIABLE RESISTOR(S)	
VR401	EVJ02BF03B14	V. R, MIC VOLUME	
JOG801	EVQWPA02224B	V. R, JOG CONTROL	
		COIL(S)	
L102	ELEXT101KA9	COIL	
L104	ELEXT101KA9	COIL	
L301	ELEXT101KA9	COIL	
L302	ELEXT100KA9	COIL	
L303	ELEXT1R2KA9	COIL	
L304, 305	ELEXT101KA9	COIL	
L310	ELESN101KA	COIL	
L311	ELEXT4R7KA9	COIL	
L312	ELEXT101KA9	COIL	
L313	ELEXT2R2KA9	COIL	
L401-403	ELEXT5R6KA9	COIL	
L404, 405	BL02RN2R62T4	COIL	
L501	ELEXT101KA9	COIL	
L601	ELEXT101KA9	COIL	(GC)
L602	ELEXT101KA9	COIL	(GC)
L603	ELEXT101KA9	COIL	(GC)
L605	ELEXT101KA9	COIL	(GC)
L801	ELEXT101KA9	COIL	
		OSCILLATOR(S)	
X300	RSXC22M5S01T	OSCILLATOR(22. 5792MHz)	
X801	RSXY6M00M01T	OSCILLATOR(6MHz)	
		DISPLAY(S)	
FL801	RSL0133-F	FL DISPLAY	⚠
		SWITCH(ES)	
S801	EVQ21405R	SW, ON/FLAT	
S802	EVQ21405R	SW, SFP FIXED	
S803	EVQ21405R	SW, EQ. FIXED	
S804	EVQ21405R	SW, USER	
S805	EVQ21405R	SW, MEMO	
S806	EVQ21405R	SW, BAND	
S807	EVQ21405R	SW, SLOPE(Q)	
S808	EVQ21405R	SW, DNC	
S809	EVQ21405R	SW, V. BASS	
S810	EVQ21405R	SW, JOG MODE	
S811	EVQ21405R	SW, DISPLAY	
S812	EVQ21405R	SW, DEMO	
S816	EVQ21405R	SW, ECHO	(GC)
S817	EVQ21405R	SW, KEY CON	(E)
S818	EVQ21405R	SW, VOICE MUTE	
		CONNECTOR(S)	
CN601	RJU057W012	SOCKET(12P)	(GC)
CN602	RJU057W007	SOCKET(7P)	(GC)
CN801	RJU057W004	SOCKET(4P)	
CN802, 803	SJS50581BB	SOCKET(5P)	
CN804-807	RJU003K008M1	SOCKET(8P)	
CP601	RJT057W012-1	CONNECTOR(12P)	(GC)
CP602	RJT057W007-1	CONNECTOR(7P)	(GC)
CP801	RJT057W004-1	CONNECTOR(4P)	
CP802, 803	SJT30549BB1	CONNECTOR(5P)	
CP804-807	RJT003K008-1	CONNECTOR(8P)	
		EARTH TERMINAL(S)	
E201	SNE1004-1	GND PLATE	
E701, 702	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT701	RTP1I4G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK101	RJT065K15	CONNECTOR(15P)	
JK201	SJF3069-4N	DAT(OUTPUT)/PHONO	
JK202	SJF3069-4N	DAT(INPUT)/VCR(OUTPUT)	
JK203	SJF3069-4N	VCR(INPUT)/VDP	
JK401	RJJ65MA01	MIC JACK	
JK901	SJF3069-7N	VDP/VCR/TV MONITOR OUT	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R101, 102	ERDS2TJ102	1/4W 1K
R103, 104	ERDS2TJ563	1/4W 56K
R105, 106	ERDS2TJ102	1/4W 1K
R107, 108	ERDS2TJ104	1/4W 100K
R109, 110	ERDS2TJ682T	1/4W 6.8K
R111, 112	ERDS2TJ224T	1/4W 220K
R113, 114	ERDS2TJ682T	1/4W 6.8K
R115, 116	ERDS2TJ224T	1/4W 220K
R117, 118	ERDS2TJ102	1/4W 1K
R119, 120	ERDS2TJ104	1/4W 100K
R121, 122	ERDS2TJ682T	1/4W 6.8K
R123, 124	ERDS2TJ224T	1/4W 220K
R125, 126	ERDS2TJ102	1/4W 1K
R131, 132	ERDS2TJ102	1/4W 1K
R133, 134	ERDS2TJ104	1/4W 100K
R151, 152	ERDS2TJ184T	1/4W 180K
R153, 154	ERDS2TJ271	1/4W 270
R155, 156	ERDS2TJ184T	1/4W 180K
R157, 158	ERDS2TJ123	1/4W 12K
R159, 160	ERDS2TJ680T	1/4W 68
R161, 162	ERDS2TJ102	1/4W 1K
R163, 164	ERDS2TJ224T	1/4W 220K
R167, 168	ERDS2TJ331	1/4W 330
R201, 202	ERDS2TJ102	1/4W 1K
R203, 204	ERDS2TJ224T	1/4W 220K
R205-208	ERDS2TJ562	1/4W 5.6K
R215, 216	ERDS2TJ223	1/4W 22K
R217, 218	ERDS2TJ682T	1/4W 6.8K
R219, 220	ERDS2TJ101	1/4W 100
R221, 222	ERDS2TJ223	1/4W 22K
R223, 224	ERDS2TJ222	1/4W 2.2K
R301, 302	ERDS2TJ222	1/4W 2.2K
R303	ERDS1FVJ820T	1/2W 82 ⚠
R306	ERDS2TJ560T	1/4W 56
R307, 308	ERDS2TJ101	1/4W 100
R309	ERDS2TJ100	1/4W 10
R310	ERDS2TJ222	1/4W 2.2K
R311	ERDS2TJ100	1/4W 10
R312	ERDS2EJ121	1/4W 120
R313	ERDS2TJ180T	1/4W 18
R315	ERDS2TJ183T	1/4W 18K
R316	ERDS2TJ224T	1/4W 220K
R317	ERDS2TJ102	1/4W 1K
R324	ERDS2TJ271	1/4W 270
R329-343	ERDS2TJ102	1/4W 1K
R345	ERDS2TJ102	1/4W 1K (E)
R346, 347	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks
R349, 350	ERDS2TJ102	1/4W 1K
R351	ERDS2TJ101	1/4W 100 (GC)
R353, 354	ERDS2TJ101	1/4W 100
R356-359	ERDS2TJ101	1/4W 100
R360-363	ERDS2TJ102	1/4W 1K
R364-375	ERDS2TJ101	1/4W 100
R376	ERDS2TJ100	1/4W 10
R377	ERDS2TJ101	1/4W 100 (GC)
R378	ERDS2TJ471	1/4W 470
R380	ERDS2TJ101	1/4W 100
R381	ERDS2TJ102	1/4W 1K
R382, 383	ERDS2TJ101	1/4W 100
R384-386	ERDS2TJ102	1/4W 1K
R392, 393	ERDS2TJ103	1/4W 10K
R394-396	ERDS2TJ472	1/4W 4.7K
R397, 398	ERDS2TJ223	1/4W 22K
R401	ERDS2TJ102	1/4W 1K
R402	ERDS2TJ473	1/4W 47K
R403	ERDS2TJ123	1/4W 12K
R405	ERDS2TJ223	1/4W 22K
R406	ERDS2TJ102	1/4W 1K
R407	ERDS2TJ104	1/4W 100K
R408	ERDS2TJ473	1/4W 47K
R409	ERDS2TJ332	1/4W 3.3K
R410	ERDS2TJ102	1/4W 1K
R411	ERDS2TJ222	1/4W 2.2K
R413, 414	ERDS2TJ472	1/4W 4.7K (GC)
R415, 416	ERDS2TJ152	1/4W 1.5K (GC)
R417, 418	ERDS2TJ563	1/4W 56K (GC)
R419, 420	ERDS2TJ823T	1/4W 82K (GC)
R421, 422	ERDS2TJ183T	1/4W 18K (GC)
R423	ERDS2TJ122	1/4W 1.2K
R424	ERDS2TJ823T	1/4W 82K (GC)
R447, 448	ERDS2TJ103	1/4W 10K (E)
R500	ERDS2TJ104	1/4W 100K
R501	ERDS2TJ100	1/4W 10
R502	ERDS2TJ181T	1/4W 180
R503	ERDS2TJ102	1/4W 1K
R505-508	ERDS2TJ472	1/4W 4.7K
R509, 510	ERDS2TJ122	1/4W 1.2K
R511-514	ERDS2TJ222	1/4W 2.2K
R515, 516	ERDS2TJ182	1/4W 1.8K
R517, 518	ERDS2TJ391	1/4W 390
R519-522	ERDS2TJ102	1/4W 1K
R523, 524	ERDS2TJ104	1/4W 100K
R525-528	ERDS2TJ472	1/4W 4.7K
R529, 530	ERDS2TJ473	1/4W 47K
R531, 532	ERDS2TJ102	1/4W 1K
R533	ERDS2TJ123	1/4W 12K

Ref. No.	Part No.	Values & Remarks
R534	ERDS2TJ223	1/4W 22K
R535	ERDS2TJ391	1/4W 390
R536-538	ERDS2TJ753T	1/4W 75K
R539	ERDS2TJ102	1/4W 1K
R540	ERDS2TJ332	1/4W 3.3K
R541, 542	ERDS2TJ563	1/4W 56K
R543	ERDS2TJ122	1/4W 1.2K
R544	ERDS2TJ101	1/4W 100
R545	ERDS2TJ124T	1/4W 120K
R547, 548	ERDS2TJ221	1/4W 220
R550	ERDS2TJ222	1/4W 2.2K
R551, 552	ERDS2TJ122	1/4W 1.2K
R553, 554	ERDS2TJ473	1/4W 47K
R555, 556	ERDS2TJ123	1/4W 12K
R558	ERDS2TJ102	1/4W 1K
R559	ERDS2TJ103	1/4W 10K
R560	ERDS2TJ563	1/4W 56K
R561	ERDS2TJ473	1/4W 47K
R562	ERDS2TJ823T	1/4W 82K
R563	ERDS2TJ563	1/4W 56K
R564	ERDS2TJ105T	1/4W 1M
R565, 566	ERDS2TJ103	1/4W 10K
R567, 568	ERDS2TJ105T	1/4W 1M
R569	ERDS2TJ222	1/4W 2.2K
R570	ERDS2TJ223	1/4W 22K
R571-574	ERDS2TJ224T	1/4W 220K
R575	ERDS2TJ332	1/4W 3.3K
R576	ERDS2TJ683	1/4W 68K
R577	ERDS2TJ332	1/4W 3.3K
R578	ERDS2TJ824	1/4W 820K
R579	ERDS2TJ224T	1/4W 220K
R580, 581	ERDS2TJ103	1/4W 10K
R582	ERDS2TJ224T	1/4W 220K
R583, 584	ERDS2TJ103	1/4W 10K
R585, 586	ERDS2TJ153	1/4W 15K (E)
R585, 586	ERDS2TJ562	1/4W 5.6K (GC)
R587-590	ERDS2TJ103	1/4W 10K
R591, 592	ERDS2TJ561	1/4W 560
R593, 594	ERDS2TJ563	1/4W 56K
R595, 596	ERDS2TJ102	1/4W 1K
R597	ERDS2TJ104	1/4W 100K
R598	ERDS2TJ182	1/4W 1.8K
R599	ERDS2TJ223	1/4W 22K
R601, 602	ERDS2TJ100	1/4W 10 (GC)
R605	ERDS2TJ100	1/4W 10 (GC)
R606	ERDS2TJ102	1/4W 1K (GC)
R607	ERDS2TJ391	1/4W 390 (GC)
R608	ERDS2TJ391	1/4W 390 (GC)
R609	ERDS2TJ103	1/4W 10K (GC)

Ref. No.	Part No.	Values & Remarks
R610	ERDS2TJ102	1/4W 1K (GC)
R611, 612	ERDS2TJ823T	1/4W 82K (GC)
R701, 702	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R703	ERDS2TJ391	1/4W 390
R704	ERDS2TJ821	1/4W 820
R705	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R706	ERDS2TJ102	1/4W 1K
R707	ERDS2TJ331	1/4W 330
R708	ERDS2TJ471	1/4W 470
R709-711	ERX1SJ3R9E	1W 3.9
R713, 714	ERDS2TJR47T	1/4W 0.47
R715	ERD25FJ6R8	1/4W 6.8 ⚠
R716	ERDS2TJ561	1/4W 560
R717	ERDS2TJ332	1/4W 3.3K
R718, 719	ERDS2TJ101	1/4W 100 ⚠
R720	ERDS2TJ100	1/4W 10
R721	ERD25FVJ3R9T	1/4W 3.9 ⚠
R722	ERD25FJ102	1/4W 1K ⚠
R725	ERDS2TJ103	1/4W 10K
R726	ERDS2TJ562	1/4W 5.6K
R727	ERDS2TJ100	1/4W 10
R728	ERDS2TJ470	1/4W 47
R801	ERDS2TJ122	1/4W 1.2K
R802, 803	ERDS2TJ103	1/4W 10K
R804-810	ERDS2TJ104	1/4W 100K
R811, 812	ERDS2TJ153	1/4W 15K
R813-822	ERDS2TJ104	1/4W 100K
R823, 824	ERDS2TJ102	1/4W 1K
R826, 827	ERDS2TJ821	1/4W 820
R829	ERDS2TJ473	1/4W 47K
R830	ERDS2TJ123	1/4W 12K
R831	ERDS2TJ562	1/4W 5.6K
R832	ERDS2TJ332	1/4W 3.3K
R833	ERDS2TJ222	1/4W 2.2K
R834	ERDS2TJ103	1/4W 10K
R902, 903	ERDS2TJ471	1/4W 470
R904	ERDS2TJ393	1/4W 39K
R905	ERDS2TJ222	1/4W 2.2K
R906	ERDS2TJ152	1/4W 1.5K
R907	ERDS1FVJ680T	1/2W 68 ⚠
R908	ERDS1FVJ820T	1/2W 82 ⚠
R910	ERDS2TJ102	1/4W 1K
R911	ERDS2TJ392T	1/4W 3.9K
R912, 913	ERDS2TJ470	1/4W 47
R914	ERDS1FVJ820T	1/2W 82 ⚠
R915, 916	ERDS2TJ471	1/4W 470
R918, 919	ERDS2TJ470	1/4W 47
R920	ERDS2TJ393	1/4W 39K
		CAPACITORS
C101-112	ECBT1H101KB5	50V 100P
C117, 118	ECBT1C152KR5	16V 1500P

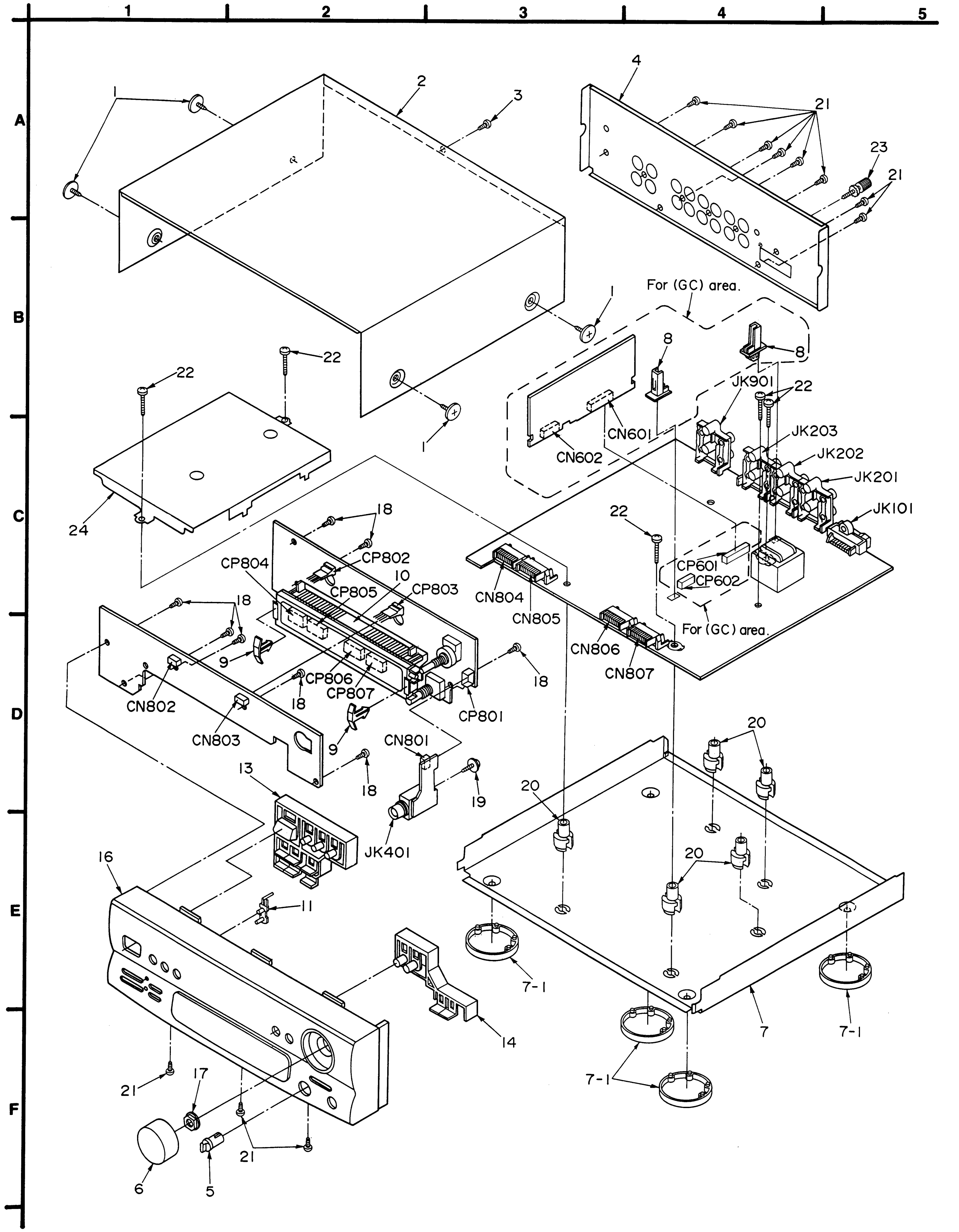
Ref. No.	Part No.	Values & Remarks
C121, 122	ECEA1HKA3R3B	50V 3.3U
C123, 124	ECBT1H221KB5	50V 220P
C125, 126	ECFR1E223KR	25V 0.022U
C127, 128	ECFR1H682KR	50V 6800P
C129, 130	ECEA1AKA330B	10V 33U
C131, 132	ECBT1H102KB5	50V 1000P
C133, 134	ECEA1HKA3R3B	50V 3.3U
C135, 136	ECEA1CKA101B	16V 100U
C153, 154	ECQV1H224JM3	50V 0.22U
C201, 202	ECEA1CKA100B	16V 10U
C203, 204	ECBT1H300J5	50V 30P
C205, 206	ECBT1H101KB5	50V 100P
C207, 208	ECEA1CKA100B	16V 10U
C209, 210	ECBT1E223ZF	25V 0.022U
C211, 212	ECBT1C682KR5	16V 6800P
C251, 252	ECBT1E103ZF	25V 0.01U
C253	ECBT1E223ZF	25V 0.022U
C301, 302	ECBT1H102KB5	50V 1000P
C303	ECEA1CKA100B	16V 10U
C304	ECBT1E223ZF	25V 0.022U
C305	ECEA1CKA100B	16V 10U
C306-308	ECBT1E223ZF	25V 0.022U
C309	ECEA0JKA101B	6.3V 100U
C310	ECBT1E103ZF	25V 0.01U
C312	ECEA0JKA101B	6.3V 100U
C313	ECBT1E223ZF	25V 0.022U
C314	ECEA1CKA100B	16V 10U
C315, 316	ECEA1HKA010B	50V 1U
C317	ECBT1E223ZF	25V 0.022U
C318	ECEA1HKA010B	50V 1U
C319	ECBT1H102KB5	50V 1000P
C320	ECBT1E223ZF	25V 0.022U
C326	ECBT1H102KB5	50V 1000P
C327	ECBT1E223ZF	25V 0.022U
C345	ECEA0JKA221B	6.3V 220U
C346	ECBT1E223ZF	25V 0.022U
C348	ECKT1H223ZF	50V 0.022U
C349	ECBT1E223ZF	25V 0.022U
C350	ECBT1H150J5	50V 15P
C351	ECBT1H200JC5	50V 20P
C352	ECBT1H102KB5	50V 1000P
C353	ECBT1E223ZF	25V 0.022U
C354	ECBT1H300J5	50V 30P
C361	ECBT1H104ZF5	50V 0.1U
C381	ECBT1E223ZF	25V 0.022U
C382, 383	ECBT1H101KB5	50V 100P
C401	ECBT1H102KB5	50V 1000P
C403	ECEA1HKS3R3B	50V 3.3U
C404	ECBT1H102KB5	50V 1000P
C405	ECBT1C222KR5	16V 2200P
C406	ECEA1CKS100L	16V 10U
C407	ECEA1HKS3R3B	50V 3.3U

Ref. No.	Part No.	Values & Remarks
C408	ECBT1H181KB5	50V 180P
C409	ECEA1CKA100B	16V 10U
C411, 412	ECBT1E223ZF	25V 0.022U
C413	ECEA1HKA3R3B	50V 3.3U
C414	ECBT1E103ZF	25V 0.01U
C415, 416	ECEA1CKA100B	16V 10U (GC)
C417, 418	ECBT1C472KR5	16V 4700P (GC)
C419, 420	ECBT1E223ZF	25V 0.022U (GC)
C421	ECBT1H102KB5	50V 1000P
C422	ECBT1H391KB5	50V 390P
C501	ECBT1E223ZF	25V 0.022U
C502	ECQV1H104JM3	50V 0.1U
C503	ECEA0JKA331Q	6.3V 330U
C504	ECEA0JKA221B	6.3V 220U
C505	ECBT1H102KB5	50V 1000P
C506	ECQV1H104JM3	50V 0.1U
C507	ECBT1H104ZF5	50V 0.1U
C508	ECEA1CKA470B	16V 47U
C510	ECBT1C103NS5	16V 0.01U
C511, 512	ECKR1H392KB5	50V 3900P
C513, 514	ECBA1H681KB5	50V 680P
C515, 516	ECEA1AKA330B	10V 33U
C519, 520	ECEA0JKA101B	6.3V 100U
C521, 522	ECBT1E223ZF	25V 0.022U
C523, 524	ECEA1HKAR47B	50V 0.47U
C525, 526	ECBT1H101KB5	50V 100P
C527-530	ECQV1H334JM3	50V 0.33U
C531, 532	ECQB1H393JF3	50V 0.039U
C533	ECQV1H274JM3	50V 0.27U
C534	ECQB1H223JF3	50V 0.022U
C535	ECFR1E272KR	25V 2700P
C536, 537	ECQV1H224JM3	50V 0.22U
C538	ECBA1H681KB5	50V 680P
C539, 540	ECBT1E223ZF	25V 0.022U
C543	ECEA1CKA100B	16V 10U
C549	ECKD1H332KB	50V 3300P
C550, 551	ECQV1H124JM3	50V 0.12U
C552	ECEA1HKA4R7B	50V 4.7U
C553	ECEA1HKAR33B	50V 0.33U
C554	ECFR1E103KR	25V 0.01U
C555, 556	ECEA1CKA470B	16V 47U
C557	ECEA1CKA100B	16V 10U
C558	ECEA1HKA010B	50V 1U
C559, 560	ECEA1CKA100B	16V 10U
C561	ECBT1H100J5	50V 10P
C562	ECFR1E563KR	25V 0.056U
C563, 564	ECFR1E273KR	25V 0.027U
C565	ECBT1H471KB5	50V 470P
C567, 568	ECBT1H471KB5	50V 470P
C569, 570	ECBA1H681KB5	50V 680P
C571-574	ECEA1CKA100B	16V 10U
C575, 576	ECFR1E683KR	25V 0.068U

Ref. No.	Part No.	Values & Remarks
C577, 578	ECBT1E223ZF	25V 0.022U
C579	ECEA0JKA470B	6.3V 47U
C580	ECEA1AKA221Q	10V 220U (E)
C580	ECEA1AKA221B	10V 220U (GC)
C601, 602	ECBT1E223ZF	25V 0.022U (GC)
C603-605	ECEA1CKA100B	16V 10U (GC)
C606, 607	ECBT1E223ZF	25V 0.022U (GC)
C609	ECEA1CKA100B	16V 10U (GC)
C611	ECBT1H471KB5	50V 470P (GC)
C612	ECBT1H471KB5	50V 470P (GC)
C614	ECBT1E103ZF	25V 0.01U (GC)
C700	ECBT1E223ZF	25V 0.022U
C701-704	ECKR1H103ZF5	50V 0.01U ⚠
C705, 706	ECQV1H104JM3	50V 0.1U ⚠
C707	ECA1CM332E	16V 3300U
C708	ECA1EM471B	25V 470U
C709, 710	ECQV1H104JM3	50V 0.1U
C711, 712	ECKR1H103ZF5	50V 0.01U
C713, 714	ECEA1CKA101B	16V 100U
C715	ECKR1H103ZF5	50V 0.01U
C716	ECEA1AKA101B	10V 100U
C717	ECKR1H103ZF5	50V 0.01U
C718	ECEA1CKA100B	16V 10U
C719	ECA0JM102B	6.3V 1000U
C720	ECEA1CKA100B	16V 10U
C721	ECA1HM470B	50V 47U
C722	ECKR1H103ZF5	50V 0.01U
C725	ECQV1H104JM3	50V 0.1U
C726	ECBT1H102KB5	50V 1000P
C727	ECEA1HKAR47B	50V 0.47U
C728	ECBT1H102KB5	50V 1000P
C730	ECBT1E223ZF	25V 0.022U
C801, 802	ECEA1HKA010B	50V 1U ⚠
C803, 804	ECEA0JKA101B	6.3V 100U
C805, 806	ECBT1E103ZF	25V 0.01U
C809	ECBT1E103ZF	25V 0.01U
C810	ECEA1HKA010B	50V 1U
C811, 901	ECBT1E103ZF	25V 0.01U
C902	ECEA0JKA221B	6.3V 220U
C903, 904	ECEA1CKA470B	16V 47U
C990	ECBT1C103NS5	16V 0.01U

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0203-1K	CABINET	
3	XTB3+8JFZ	SCREW	
4	RGR0153B-A	REAR PANEL	
5	RGW0105-K	KNOB, MIC VOLUME	
6	RGW0159-K	KNOB, JOG	
7	RFKJHCH550PP	BOTTOM BOARD ASS'Y	
7-1	RKA0055-N	FOOT	
8	RMN0203	HOLDER	(GC)
9	RMN0195	FL SPACER	
10	RMN0196	FL HOLDER	
11	RGL0170-Q	LEADING LIGHT PANEL	
13	RGU0798-K	BUTTON, ON/FLAT etc.	
14	RGU0799-K	BUTTON, DISPLAY etc.	
16	RFKGHCH750EK	FRONT PANEL ASS'Y	(E)
16	RFKGHCH750GC	FRONT PANEL ASS'Y	(GC)
17	SNE4021-1	NUT	
18	XTBS26+8J	SCREW	
19	XTWS3+10T	SCREW	
20	SHE185-2	P.C.B. SPACER	
21	XTBS3+8JFZ1	SCREW	
22	XTB3+16JFZ	SCREW	
23	SNE2123	GND SCREW	
24	RSC0303	SHIELD PLATE	

■ CABINET PARTS LOCATION


1
2
3
4
5
A
B
C
D
E
F
1
2
3
4
21
23
21
For (GC) area.
8
8
22
22
22
JK901
CN601
CN602
JK203
JK202
JK201
JK101
24
18
22
CP804
CP802
10
CP805
CP803
CN804
CN805
CP601
CP602
For (GC) area.
CN806
CN807
18
9
CP806
CP807
18
CN802
CN803
CP801
18
9
CN801
13
18
19
20
20
20
16
JK401
11
14
7-1
7
7-1
7-1
21
17
21
6
5

Printed in Japan
F921212000FF/HH/TN

ORDER NO. AD9211377C8

Service Manual

COMPACT
disc
DIGITAL AUDIO

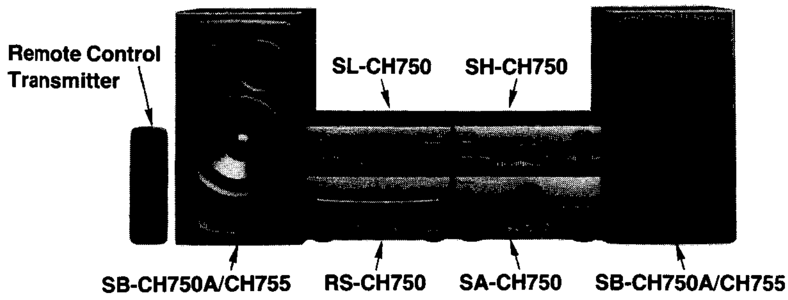
Compact Disc Player

MASH*
multi-stage noise shaping

Compact Disc Player

SL-CH750

•For (E), (EB), (EG) areas


Remote Control Transmitter
SL-CH750
SH-CH750
SB-CH750A/CH755
RS-CH750
SA-CH750
SB-CH750A/CH755

Colour

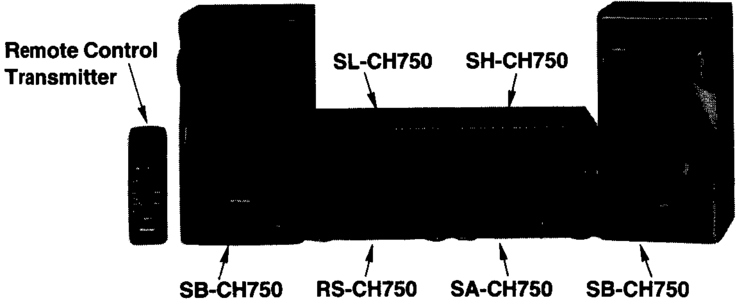
(K) .... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH750

•For (GC), (GN) areas


Remote Control Transmitter
SL-CH750
SH-CH750
SB-CH750
RS-CH750
SA-CH750
SB-CH750

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

SL-CH550 TRAVERSE DECK SERIES (RAE0111Z)

SPECIFICATIONS

(DIN 45 500)

■ Audio

DA converter	1 bit 2 DAC MASH

■ Pickup

Wavelength	780 nm
Laser power	No hazardous radiation is emitted (with safety protection)

■ General

Dimensions (W×H×D)	270×89.5×258.5 mm
Weight	2.1 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.

*
- •Technics (or Panasonic) developed the world's first MASH type DAC and ADC. MASH technology was invented by NTT (LSI Labs).
- •MASH is a trademark of NTT.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH750	SH-CH750	SA-CH750	SL-CH750	RS-CH750	*SB-CH750A ...... (E), (EB), (EG) areas *SB-CH755 .... Switzerland only SB-CH750 .... (GC), (GN) areas

***Made in PAES**

Technics

■ CONTENTS

Page

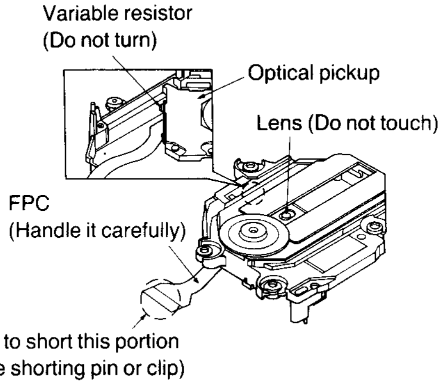
- HANDLING PRECAUTIONS FOR TRAVERSE DECK 2
- PRECAUTION OF LASER DIODE 2, 3
- LOCATION OF CONTROLS 3, 4
- DISASSEMBLY INSTRUCTIONS ....5~9
- SCHEMATIC DIAGRAM .... 10~15
- PRINTED CIRCUIT BOARD DIAGRAM................ 16~18
- WIRING CONNECTION DIAGRAM 19
- MEASUREMENTS AND ADJUSTMENTS 20, 21

Page

- NEW DIGITAL SERVO CIRCUIT 22
- TROUBLESHOOTING GUIDE 23, 24
- FUNCTION OF IC TERMINALS .... 25~28
- BLOCK DIAGRAM................................. 29~32
- REPLACEMENT PARTS LIST .... 33~35
- CABINET PARTS LOCATION 36
- LOADING UNIT PARTS LOCATION 37

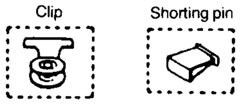
■ HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).



•Handling of traverse deck (optical pickup)

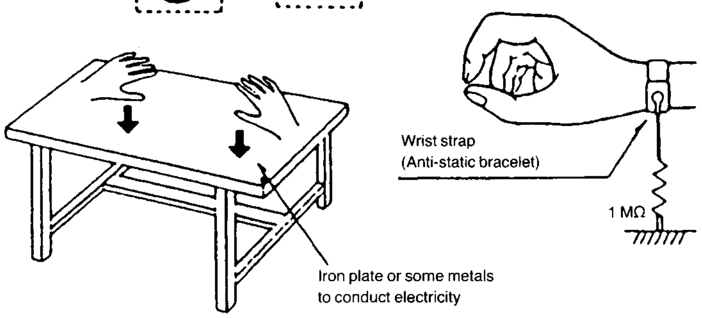
1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.



•Grounding for electrostatic breakdown prevention

1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution:
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).



■ PRECAUTION OF LASER DIODE

CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 µW/VDE

Laser radiation from the pick up unit is safety level, but be sure the followings:

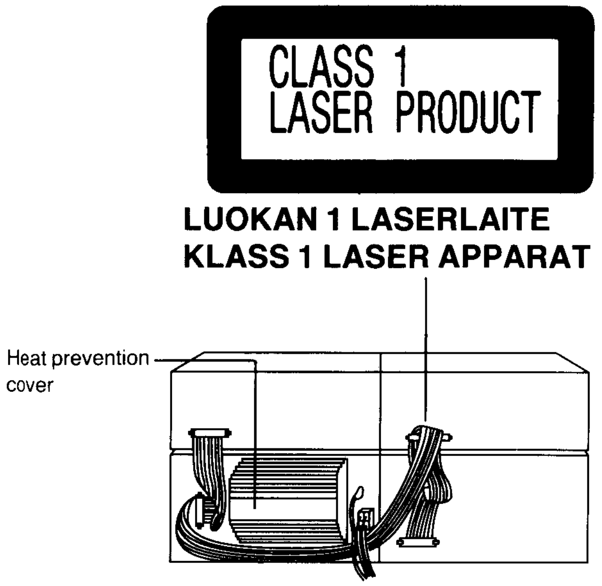
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not lock at the focus lens using optical instruments.
4. Recommend not to lock at pick up lens for a long time.

ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahlt.

Wellenlänge: 780 nm
Maximale strahlungsleistung der laserinheit: 100 µW/VDE

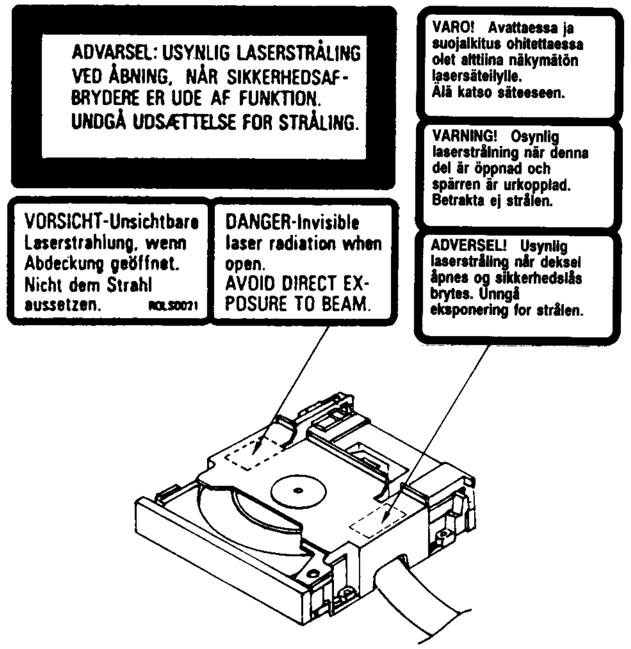
Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
2. Den werksseitig justierten einstellregler der lasereinreit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.



CLASS 1
LASER PRODUCT

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



ADVARSEL: USYNLIG LASERSTRÅLING
VED ÅBNING, NÅR SIKKERHEDSAF-
BRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.

VORSICHT-Unsichtbare
Laserstrahlung, wenn
Abdeckung geöffnet.
Nicht dem Strahl
aussetzen. RQLS0021

DANGER-Invisible
laser radiation when
open.
AVOID DIRECT EX-
POSURE TO BEAM.

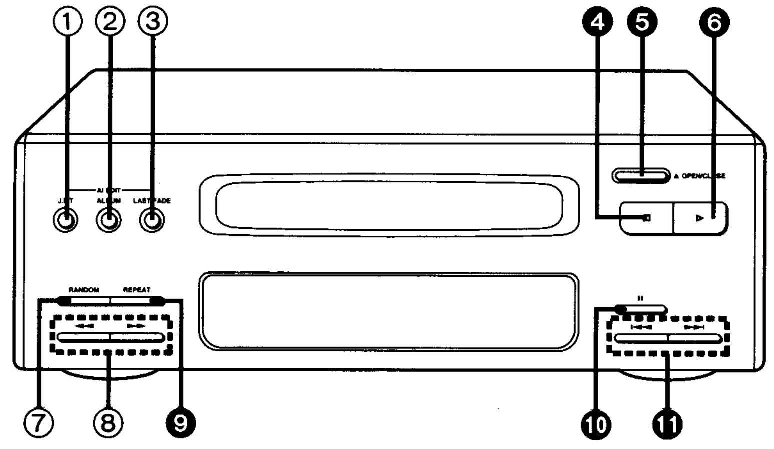
VARO! Avattaessa ja
suojalkitus ohitettaessa
olet alttiina näkymätön
lasersäteilylle.
Älä katso säteeseen.

VARNING! Osynlig
laserstrålning när denna
del är öppnad och
spärren är urkopplad.
Betrakta ej strålen.

ADVERSEL! Usynlig
laserstråling når deksel
åpnes og sikkerhedslås
brytes. Unngå
eksponering for strålen.

NOTE:
Refer to the service manual for Model No. SA-CH750 (Order No. AD9211379C8) for information on "ACCESSORIES", "STACKING THE COMPONENTS", "CONNECTIONS" and "PACKAGING".

■ LOCATION OF CONTROLS



Note:
The functions indicated by the numbers with black background (for example ❹) can also be activated from the remote control.

① **Fit edit button (J. FIT)**
Press to activate the fit editing mode.

② **Sequential CD recording button (ALBUM)**
Press to activate the sequential CD recording mode.

③ **Last fade edit button (LAST FADE)**
Press to activate the fade out editing mode.

❹ **Stop button (□)**
Press to stop the disc play.

❺ **Disc tray open/close button (≜ OPEN/CLOSE)**
Press to open and close the disc tray.

❻ **Play button (▷)**
Press to start disc play and synchro start function.

⑦ **Random play button (RANDOM)**
Press to play the disc's tracks in random order.

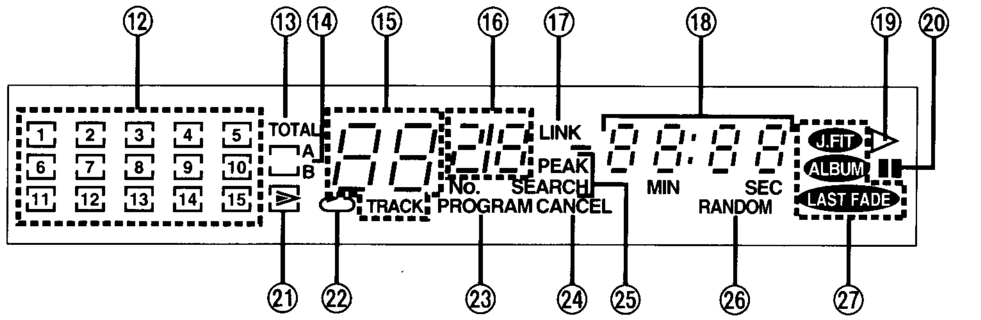
⑧ **Search buttons (◀◀, ▶▶)**
Press and hold to find the desired point on the track while in the play mode.

❾ **Repeat button (REPEAT)**
Press to activate the repeat mode.

❿ **Pause button (❚❚)**
Press to stop the disc play temporarily.

⓫ **Skip buttons (|◀◀, ▶▶|)**
Press to skip tracks.

•Display Panel



⑫ **Matrix display**
Shows the total number of tracks on a disc, and shows the current playing track by flashing.

⑬ **Total tracks indicator (TOTAL)**
Lights to show the total number of tracks edited on side A and B when you use the edit-recording from a compact disc.

⑭ **Tape side indicator (A, B)**
Shows which side of the cassette tape (A or B) will be recorded on when you use the edit-recording from a compact disc.

⑮ **Track number display**
Shows the total number of tracks, and current playing or recording track number.

⑯ **Program number display**
Lights together with the program indicator to show the programmed order.

⑰ **Link indicator (LINK)**
Lights to show the disc link is possible when you use the edit-recording from a compact disc.

⑱ **Time display**
Shows the total playing time on the disc, and elapsed play time of the current track.

⑲ **Play indicator (▷)**
Lights when you play a compact disc.

⑳ **Pause indicator (❚❚)**
Lights when you press the pause button to stop the disc play temporarily.

㉑ **Over indicator (⋗)**
Lights if there are 16 or more tracks on a disc.

㉒ **Repeat mode indicator (⭯)**
Lights during the repeat mode of a compact disc.

㉓ **Program indicator (PROGRAM)**
Lights during program play mode of a compact disc.

㉔ **Program cancel indicator (CANCEL)**
Lights when you cancel a program.

㉕ **Peak search indicator (PEAK SEARCH)**
In the edit-recording mode, lights when the compact disc player is automatically scanning the peak level on a disc. When peak search ends, "PEAK" flashes to indicate the peak level of a compact disc.

㉖ **Random play indicator (RANDOM)**
Lights during the random play mode.

㉗ **Edit mode indicators (J. FIT, ALBUM, LAST FADE)**

J. FIT:	Lights when you activate the fit editing mode.
ALBUM:	Lights when you activate the sequential CD recording mode.
LAST FADE:	Lights when you activate the fade out editing mode.

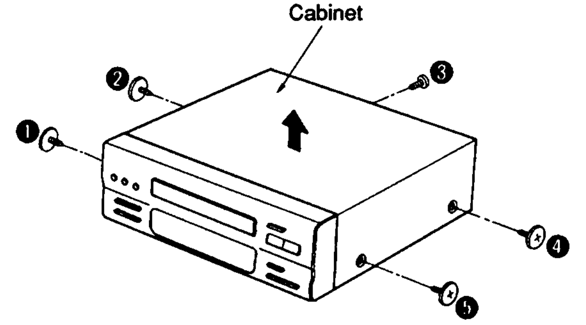
■ DISASSEMBLY INSTRUCTIONS

Warning: This product uses a laser diode. Refer to caution statements on page 2.
ACHTUNG: Die lasereinheit nicht zerlegen.
Die lasereilnheit dart nur gegen eine vom hersteller speziferte einheit ausgetauscht werden.
"ATTENTION SERVICER" Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1

Removal of the Cabinet

Procedure 1

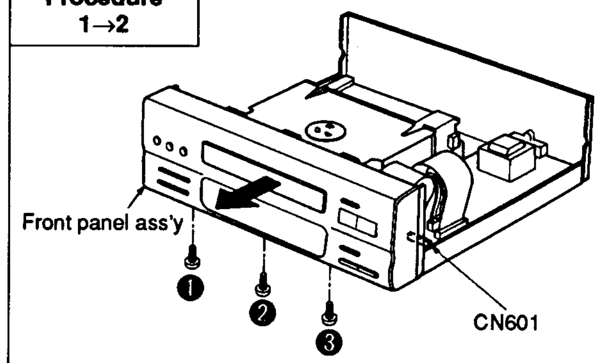

Cabinet
❷
❸
❶
❹
❺

1. Remove the 5 screws (❶~❺).
2. Remoce the cabinet in the direction of arrow.

Ref. No. 2

Removal of the Front Panel Ass'y

Procedure 1→2

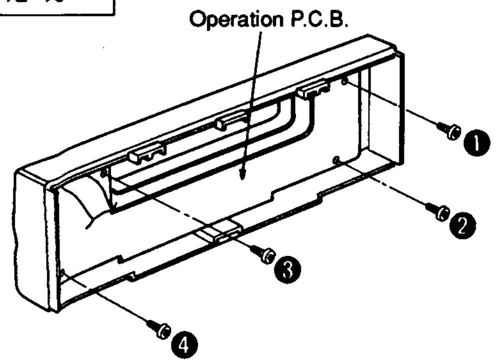

Front panel ass'y
❶
❷
❸
CN601

1. Remove the 1 connector (CN601).
2. Remove the 3 screws (❶~❸).
3. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3

Removal of the Operation P.C.B.

Procedure 1→2→3

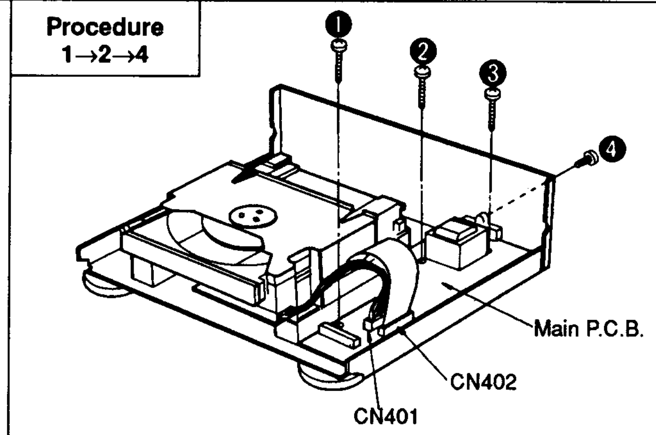

Operation P.C.B.
❶
❷
❸
❹

- Remove the 4 screws (❶~❹).

Ref. No. 4

Removal of the Main P.C.B.

Procedure 1→2→4

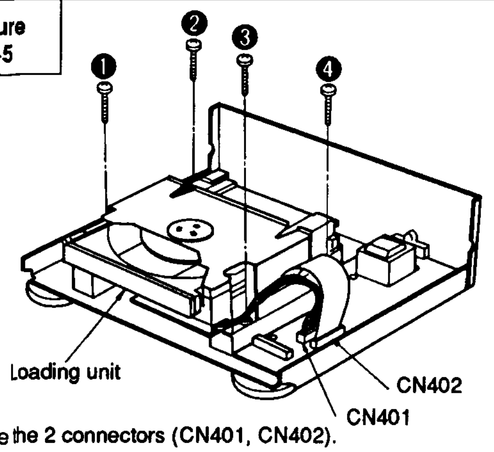

❶
❷
❸
❹
Main P.C.B.
CN402
CN401

1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 5

Removal of the Loading Unit

Procedure 1→2→5

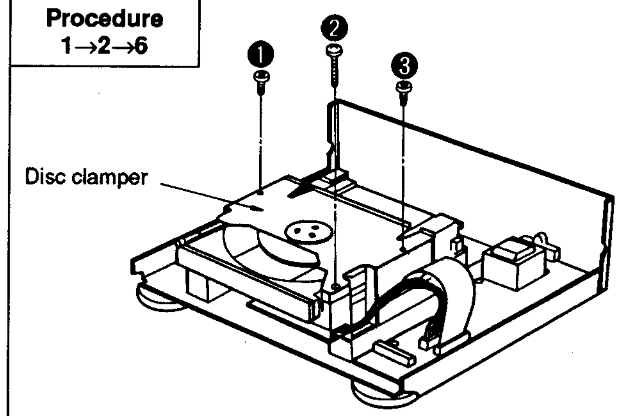

❶
❷
❸
❹
Loading unit
CN402
CN401

1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 6

Removal of the Disc Clamper

Procedure 1→2→6

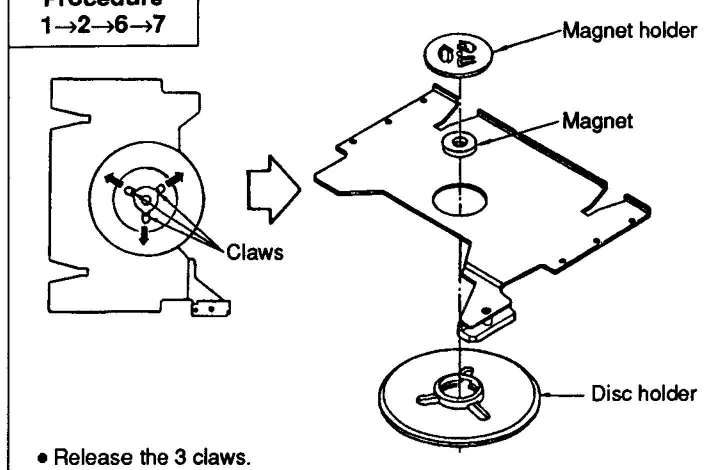

Disc clamper
❶
❷
❸

- Remove the 3 screws (❶~❸).

Ref. No. 7

Removal of the Magnet Holder, Magnet and Disc Holder

Procedure 1→2→6→7

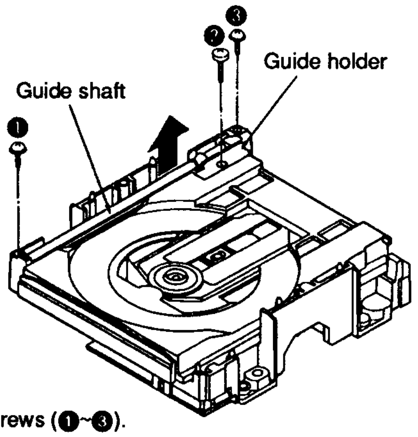

Magnet holder
Magnet
Claws
Disc holder

- Release the 3 claws.

Ref. No. 8

Removal of the Guide Shaft and Guide Holder

Procedure 1→2→6→8

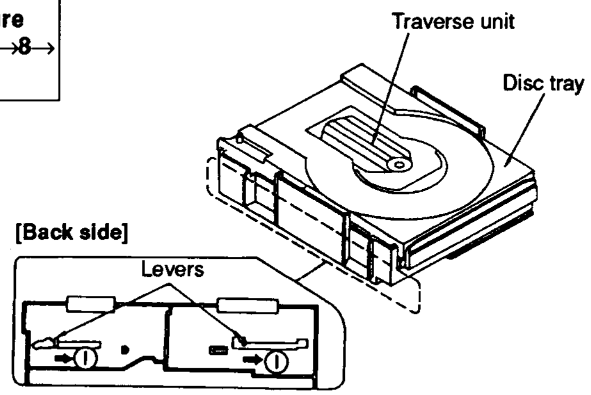

❸
❷
Guide holder
Guide shaft
❶

1. Remove the 3 screws (❶~❸).
2. Remove the guide shaft and guide holder in the direction of arrow.

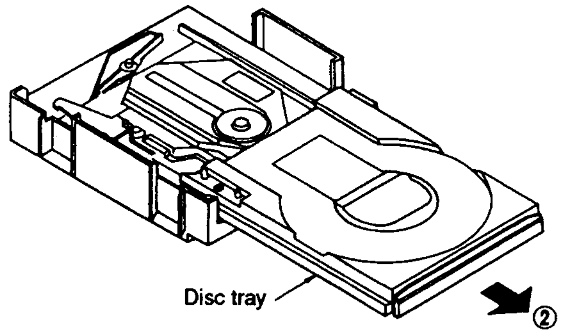
Ref. No. 9

Removal of the Disc Tray

Procedure 1→2→5→6→8→9


Traverse unit
Disc tray
[Back side]
Levers
①
①

1. Push the 2 levers in the direction of arrow ① until the traverse unit goes down and the disc tray slightly in the direction of arrow ②.

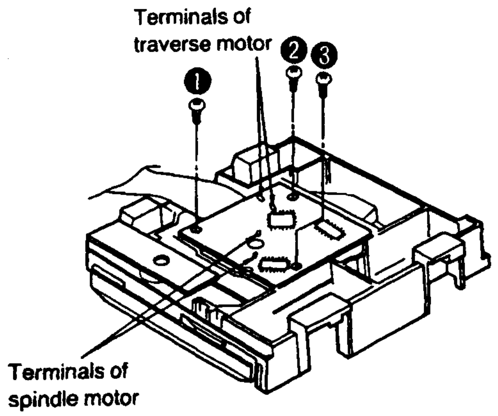


2. Remove the disc tray in the direction of arrow ②.

Ref. No. 10

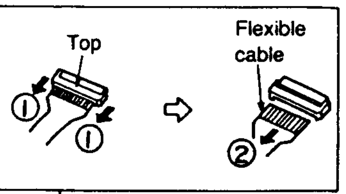
Removal of the Servo P.C.B.

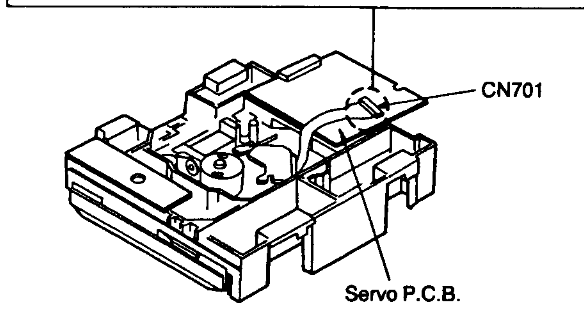
Procedure 1→2→5→10


Terminals of traverse motor
❷
❸
❶
Terminals of spindle motor

1. Remove the 3 screws (❶~❸).
2. Unsolder the 2 terminals of spindle motor.
3. Unsolder the 2 terminals of traverse motor.

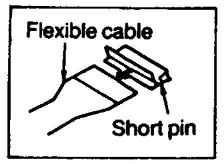
•Removal of the flexible cable
Push the top of the connector in the direction of the arrow ①, and then Pull Out the flexible cable in the direction of the arrow ②.


Top
①
①
Flexible cable
②


CN701
Servo P.C.B.

4. Remove the flexible cable (CN701).

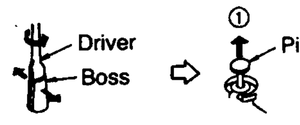
Note:
Insert a short pin into the traverse unit flexible cable.
(Refer to "Handling precautions for traverse deck" on page 2)


Flexible cable
Short pin

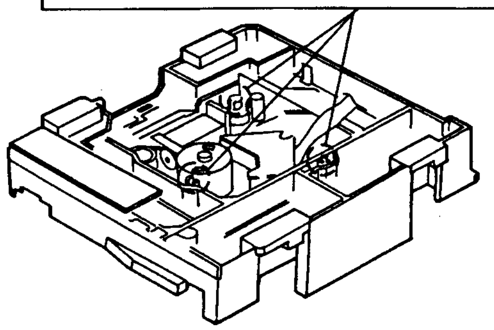
Ref. No.
11

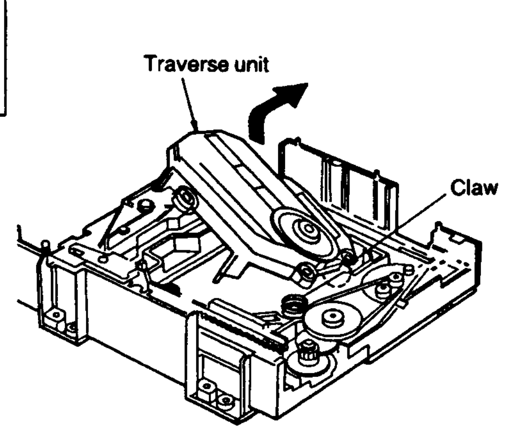
Removal of the Traverse Unit

Procedure
1→2→5→6→8→9→10→11


Driver
Boss
①
Pin

1. Widen the boss by using a regular screwdriver or similar object.
2. Pull out the pin.



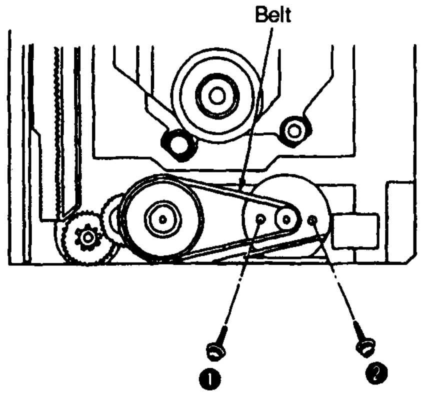

Traverse unit
Claw

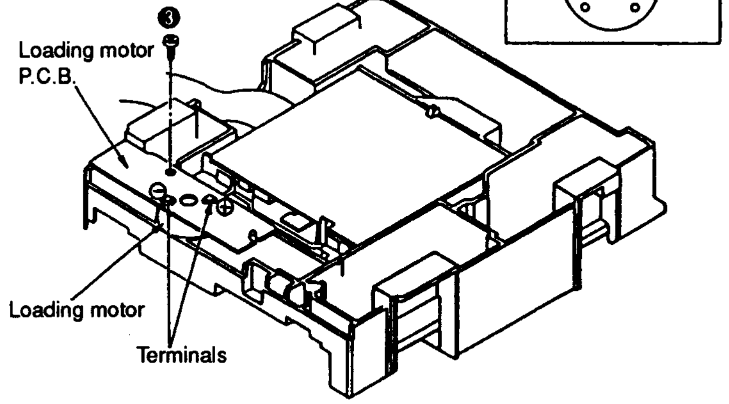
1. Remove the 3 pins in the direction of arrow ①.
2. Release the claw and then remove the traverse unit in the direction of arrow.

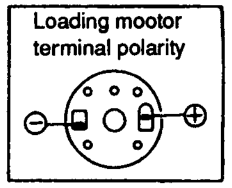
Ref. No.
12

Removal of the Loading Motor P.C.B. and Loading Motor

Procedure
1→2→5→6→8→9→12




❸
Loading motor P.C.B.
Loading motor
Terminals

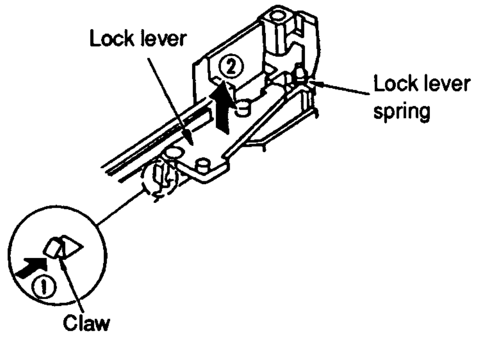

Loading mootor terminal polarity
⊖
⊕

1. Remove the belt.
2. Remove the 2 screws (❶, ❷).
3. Remove the 1 screw (❸).
4. Unsolder the 2 terminals of loading motor.

Ref. No.
13

Removal of the Lock Lever

Procedure
1→2→6→8→9→13

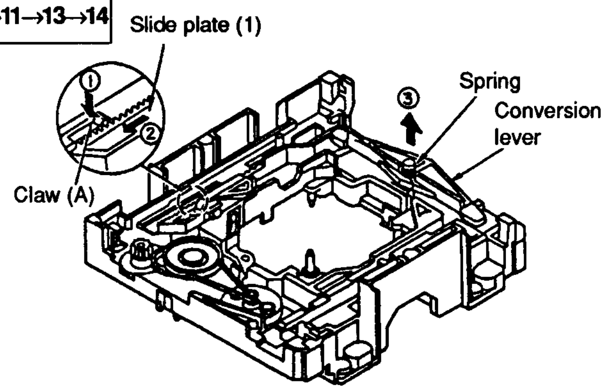

Lock lever
②
Lock lever spring
①
Claw

1. Remove the lock lever spring.
2. Release the claw in the direction of the arrow ①, and then remove the lock lever in the direction of arrow ②.

Ref. No.
14

Removal of the Conversion Lever

Procedure
1→2→5→6→8→9→10→11→13→14

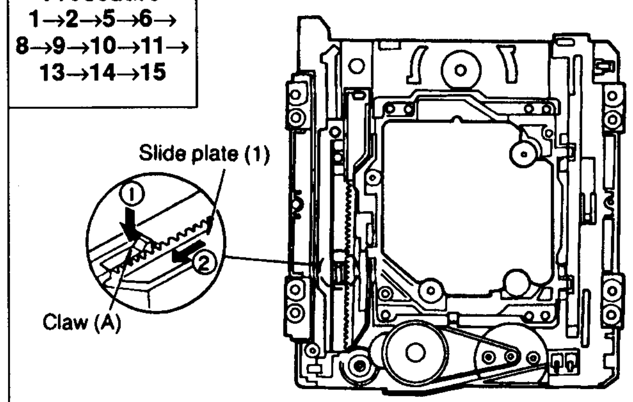

Slide plate (1)
①
②
Claw (A)
③
Spring
Conversion lever

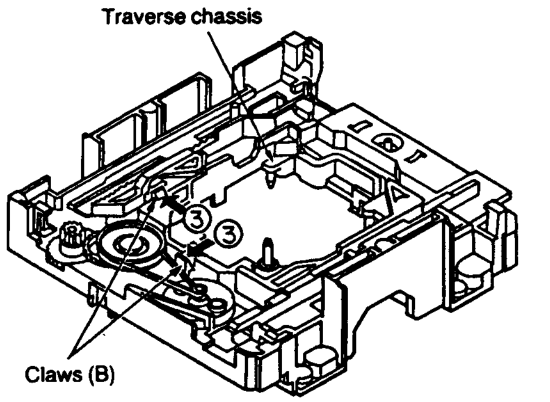
1. Remove the spring.
2. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.
3. Remove the conversion lever in the direction of arrow ③.

Ref. No.
15

Removal of the Traverse Chassis

Procedure
1→2→5→6→8→9→10→11→13→14→15


Slide plate (1)
①
②
Claw (A)

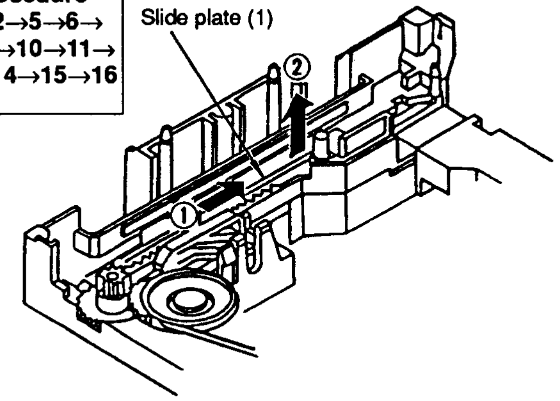

Traverse chassis
③
③
Claws (B)

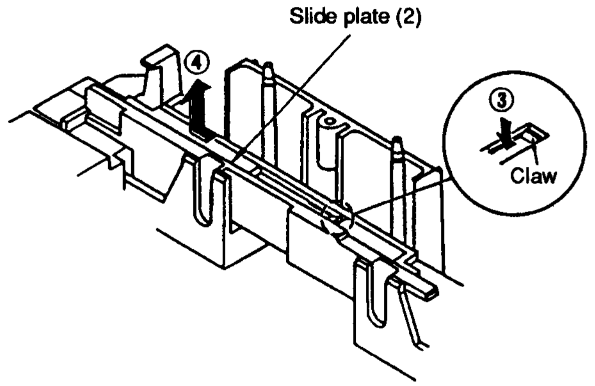
1. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.
2. Push 2 claws (B) in the direction of arrow ③, and then remove the traverse chassis.

Ref. No.
16

Removal of the Slide Plate (1) and Slide Plate (2)

Procedure
1→2→5→6→8→9→10→11→13→14→15→16


Slide plate (1)
②
①


Slide plate (2)
④
③
Claw

■ Removal of the Slide Plate (1)

- Move the slide plate (1) in the direction of the arrow ①, and remove the slide plate (1) in the direction of the arrow ②.

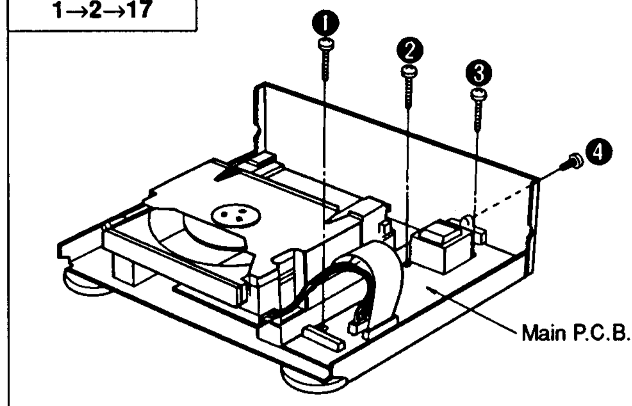
■ Removal of the Slide Plate (2)

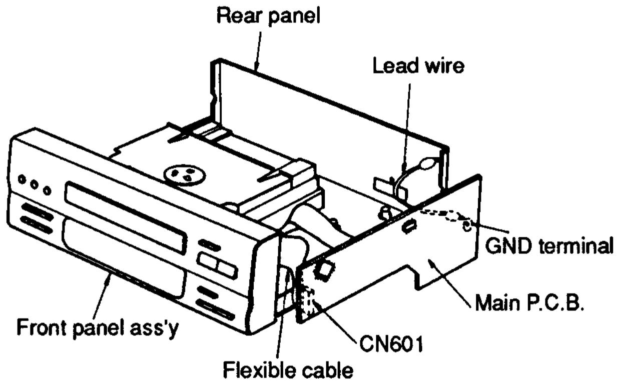
- Push the claw in the direction of arrow ③, and then remove the slide plate (2) in the direction of arrow ④.

Ref. No.
17

How to check the Main P.C.B.

Procedure
1→2→17


❶
❷
❸
❹
Main P.C.B.

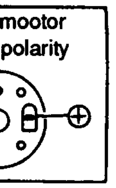

Rear panel
Lead wire
GND terminal
Main P.C.B.
CN601
Front panel ass'y
Flexible cable

1. Remove the 4 screws (❶~❹).
2. Remove the main P.C.B. and then stand the main P.C.B. at the side of unit.
3. Reinstall the front panel ass'y to the unit and then connect the flexible cable (CN601).
4. Connect the GND terminal to the rear panel by the lead wire.
5. When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.

w

n the

mootor
polarity



Lever

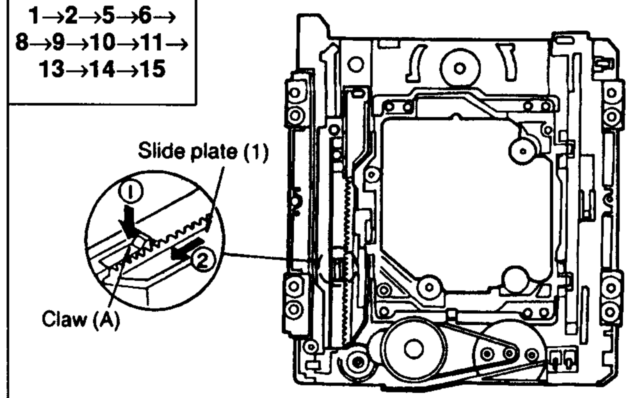
ring
Conversion
lever

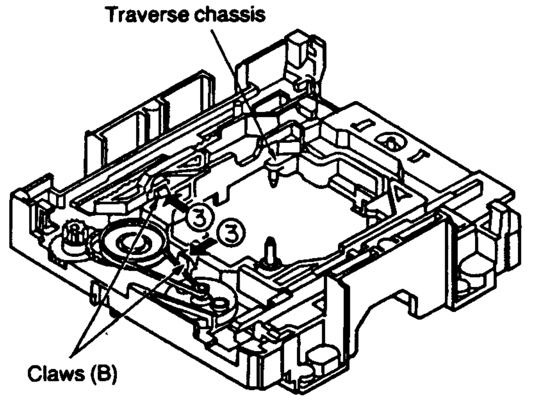
n move

③.

Ref. No. 15	Removal of the Traverse Chassis

Procedure
1→2→5→6→
8→9→10→11→
13→14→15

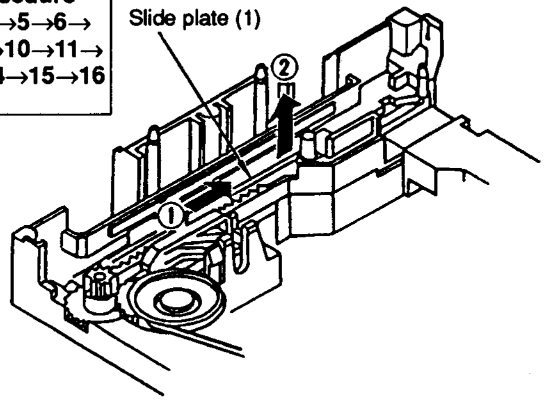

Slide plate (1)
①
②
Claw (A)

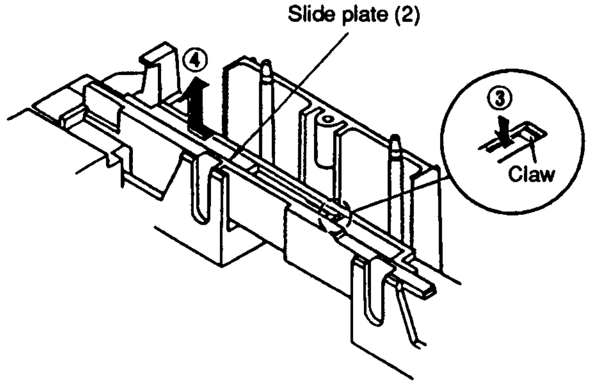

Traverse chassis
③
③
Claws (B)

1. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.
2. Push 2 claws (B) in the direction of arrow ③, and then remove the traverse chassis.

Ref. No. 16	Removal of the Slide Plate (1) and Slide Plate (2)

Procedure
1→2→5→6→
8→9→10→11→
13→14→15→16


Slide plate (1)
②
①


Slide plate (2)
④
③
Claw

■ Removal of the Slide Plate (1)

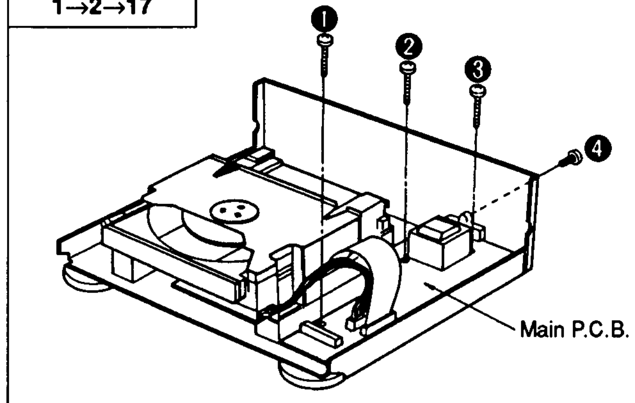
- Move the slide plate (1) in the direction of the arrow ①, and remove the slide plate (1) in the direction of the arrow ②.

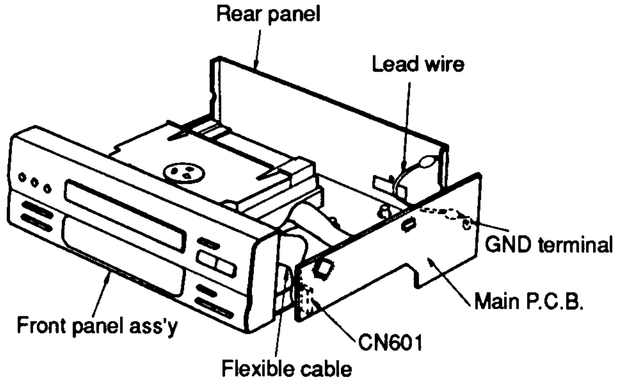
■ Removal of the Slide Plate (2)

- Push the claw in the direction of arrow ③, and then remove the slide plate (2) in the direction of arrow ④.

Ref. No. 17	How to check the Main P.C.B.

Procedure
1→2→17

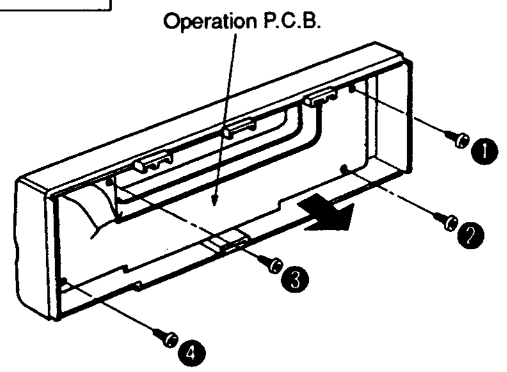

❶
❷
❸
❹
Main P.C.B.

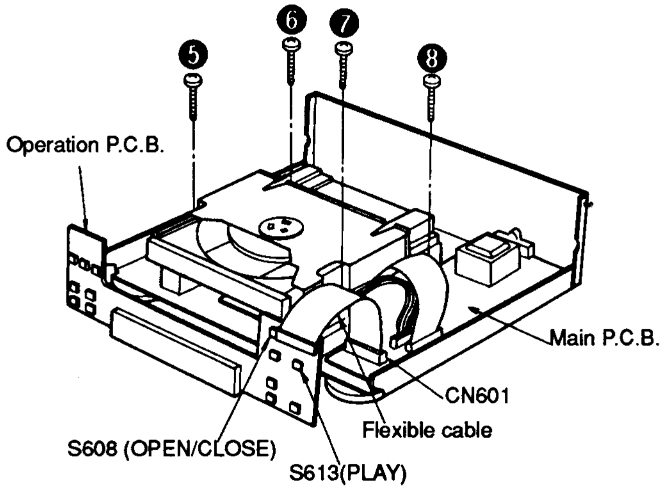

Rear panel
Lead wire
GND terminal
Main P.C.B.
CN601
Flexible cable
Front panel ass'y

1. Remove the 4 screws (❶~❹).
2. Remove the main P.C.B. and then stand the main P.C.B. at the side of unit.
3. Reinstall the front panel ass'y to the unit and then connect the flexible cable (CN601).
4. Connect the GND terminal to the rear panel by the lead wire.
5. When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.

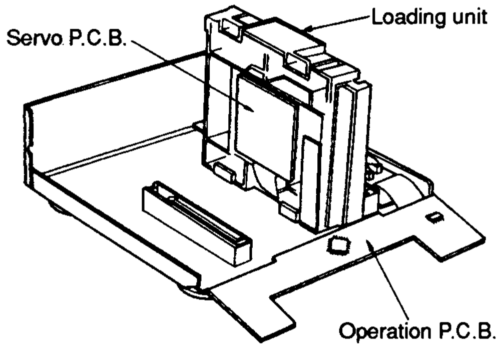
Ref. No. 18	How to check the Operation P.C.B. and Servo P.C.B.

Procedure
1→2→18


Operation P.C.B.
❶
❷
❸
❹


❺
❻
❼
❽
Operation P.C.B.
Main P.C.B.
CN601
Flexible cable
S608 (OPEN/CLOSE)
S613(PLAY)

1. Remove the 4 screws (❶~❹).
2. Remove the operation P.C.B..
3. Remove the 4 screws (❺~❽).
4. Connect the flexible cable to connector (CN601).


Servo P.C.B.
Loading unit
Operation P.C.B.

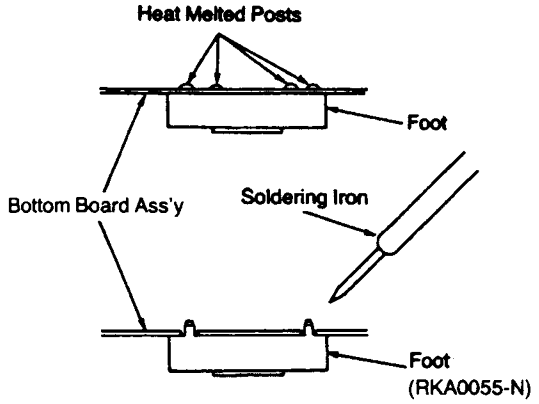
5. Place the loading unit sideways as shown above.
6. When checing the soldered surfaces of the operation P.C.B. and servo P.C.B., do as shown above.

To play a disc

1. Push the S608 (OPEN/CLOSE) switch so that the loading unit comes up.
2. Playing the test disc on the tray. Then, push the S608 (OPEN/CLOSE) switch to set the test disc.
3. Push the S613 (PLAY) switch to start the disc play.

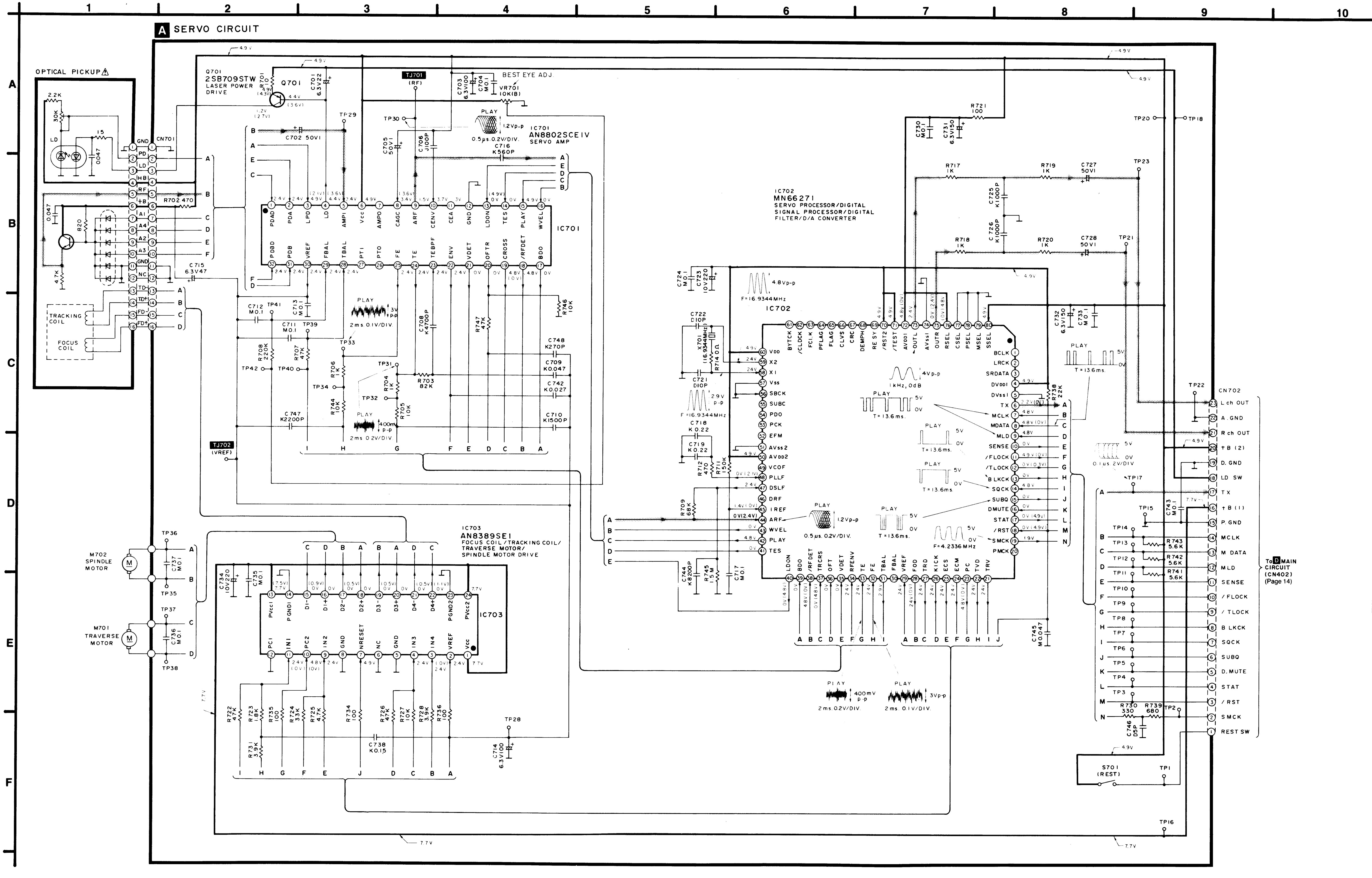
●Replacement of the Foot.

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the Bottom board ass'y, melt the 4 posts with a soldering iron.


Heat Melted Posts
Foot
Bottom Board Ass'y
Soldering Iron
Foot
(RKA0055-N)

NOTE:
Please refer to pages 10-13 in the service manual for Model No. SL-CH550 (Order No. AD9208264C8) for information on "INSTALLING SERVO P.C.B.","INSTALLING OF GUIDE SHAFT","CD UNIT ASSEMBLY","INSTALLING DISC TRAY UNIT" and "INSTALLING DISC TRAY".

■ SCHEMATIC DIAGRAM •OPTICAL PICKUP AND SERVO CIRCUIT (Parts list on pages 33 and 34.)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
A SERVO CIRCUIT
OPTICAL PICKUP⚠
LD
TRACKING COIL
FOCUS COIL
CN701
Q701 2SB709STW LASER POWER DRIVE
TJ701 (RF)
BEST EYE ADJ
VR701 10K(B)
IC701 AN8802SCEIV SERVO AMP
TJ702 (VREF)
IC702 MN66271 SERVO PROCESSOR/DIGITAL SIGNAL PROCESSOR/DIGITAL FILTER/D/A CONVERTER
X701 (16.9344MHz)
F=16.9344MHz
F=4.2336MHz
1kHz, 0dB
T=13.6ms.
IC703 AN8389SE1 FOCUS COIL/TRACKING COIL/ TRAVERSE MOTOR/ SPINDLE MOTOR DRIVE
M702 SPINDLE MOTOR
M701 TRAVERSE MOTOR
CN702
L ch OUT
A. GND
R ch OUT
+B (2)
D. GND
LD SW
TX
+B (1)
P. GND
MCLK
M DATA
MLD
SENSE
/FLOCK
/TLOCK
B LKCK
SQCK
SUBQ
D. MUTE
STAT
/RST
SMCK
REST SW
To D MAIN CIRCUIT (CN402) (Page 14)
S701 (REST)
PLAY
2ms. 0.1V/DIV.
2ms. 0.2V/DIV.
0.5μs. 0.2V/DIV.
1.2Vp-p
400mV p-p
3Vp-p
4.8Vp-p
4Vp-p
4.9V
7.7V

Notes:
- •S601
- •S602
- •S603
- •S604
- •S605
- •S606
- •S607
- •S608
- •S609
- •S610
- •S611
- •S612
- •S613
- •S701
- •S790
- •S791
- •Indicated vo
  chassis take
  Therefore, th

No ma

- •Important sa
  Components
  Furthermore
  are used. Wh

Caution!

IC and LSI are
Secondary tro

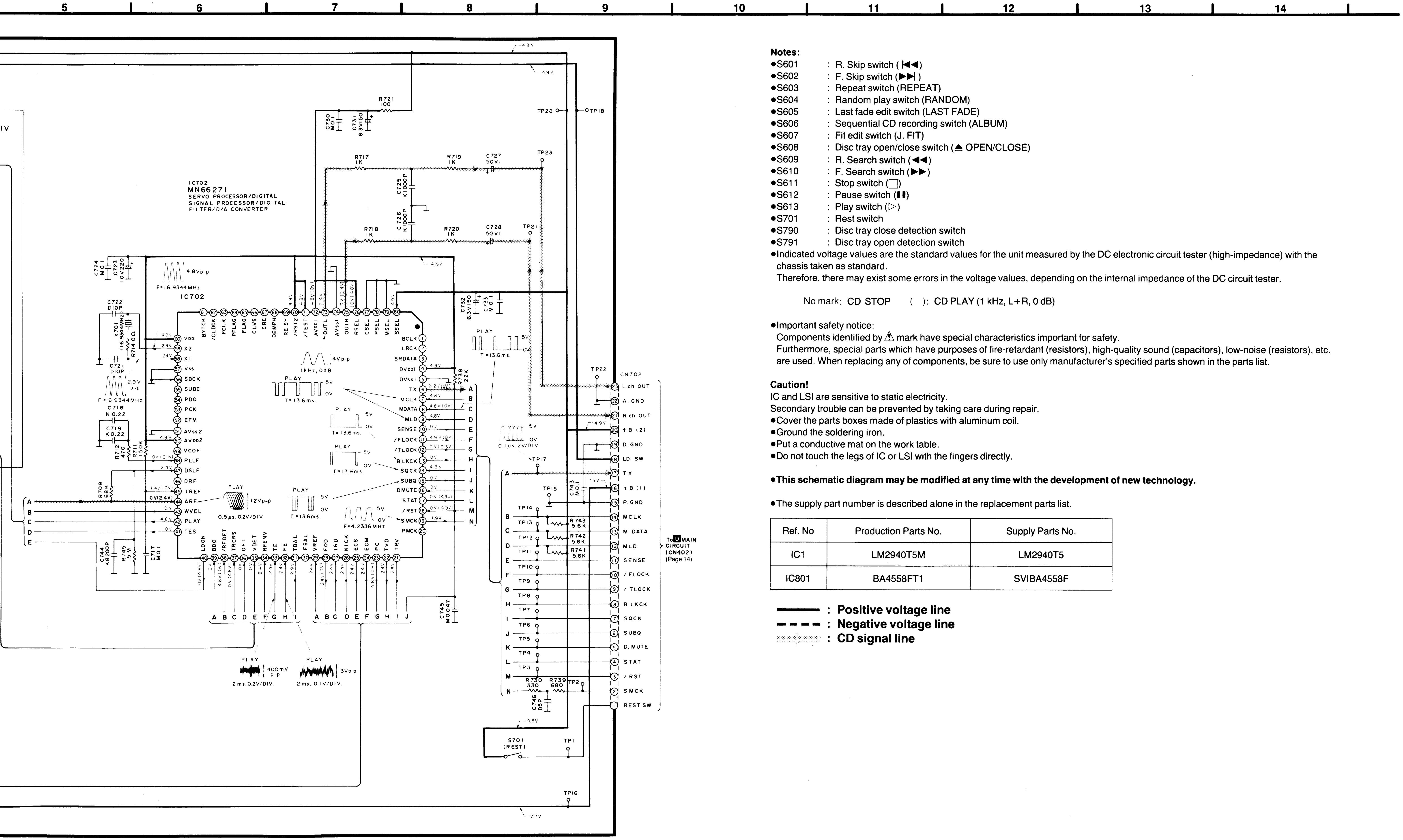
- •Cover the pa
- •Ground the s
- •Put a condu
- •Do not touch

- **•This schem**

- •The supply p

Ref. No
IC1
IC801

on pages 33 and 34.)


5
6
7
8
9
10
11
12
13
14
IC702
MN66271
SERVO PROCESSOR/DIGITAL
SIGNAL PROCESSOR/DIGITAL
FILTER/D/A CONVERTER
R721 100
C730 M0.1
C731 6.3V150
R717 1K
R719 1K
C727 50V1
C725 K1000P
C726 K1000P
R718 1K
R720 1K
C728 50V1
TP18
TP20
TP21
TP22
TP23
C724 M0.1
C723 10V220
C722 D10P
X701 16.9344MHz
R714 0Ω
C721 D10P
C718 K0.22
C719 K0.22
R712 470
R711 150K
R709 68K
C744 K8200P
R745 1.5M
C717 M0.1
C732 6.3V150
C733 M0.1
R738 22K
C743 M0.1
C745 M0.047
F=16.9344MHz
4.8Vp-p
2.9V p-p
1kHz, 0dB
4Vp-p
PLAY
T=13.6ms.
1.2Vp-p
0.5μs. 0.2V/DIV.
F=4.2336MHz
0.1μs. 2V/DIV
400mV p-p
2ms. 0.2V/DIV.
3Vp-p
2ms. 0.1V/DIV.
BYTCK
/CLOCK
FCLK
PFLAG
FLAG
CLVS
CRC
DEMPH
RESY
/RST2
/TEST
AVDD1
OUTL
AVSS1
OUTR
RSEL
CSEL
PSEL
MSEL
SSEL
VDD
X2
X1
VSS
SBCK
SUBC
PDO
PCK
EFM
AVSS2
AVDD2
VCOF
PLLF
DSLF
DRF
IREF
ARF
WVEL
PLAY
TES
BCLK
LRCK
SRDATA
DVDD1
DVSS1
TX
MCLK
MDATA
MLD
SENSE
/FLOCK
/TLOCK
BLKCK
SQCK
SUBQ
DMUTE
STAT
/RST
SMCK
PMCK
LDON
BDO
/RFDET
TRCRS
OFT
VDET
RFENV
TE
FE
TBAL
FBAL
VREF
FOD
TRD
KICK
ECS
ECM
PC
TVD
TRV
CN702
L ch OUT
A. GND
R ch OUT
+B (2)
D. GND
LD SW
TX
+B (1)
P. GND
MCLK
M DATA
MLD
SENSE
/FLOCK
/TLOCK
B LKCK
SQCK
SUBQ
D. MUTE
STAT
/RST
SMCK
REST SW
R743 5.6K
R742 5.6K
R741 5.6K
R730 330
R739 680
C746 05P
S701 (REST)
TP1
TP16
To D MAIN CIRCUIT (CN402) (Page 14)

Notes:

- S601 : R. Skip switch (|◀◀)
- S602 : F. Skip switch (▶▶|)
- S603 : Repeat switch (REPEAT)
- S604 : Random play switch (RANDOM)
- S605 : Last fade edit switch (LAST FADE)
- S606 : Sequential CD recording switch (ALBUM)
- S607 : Fit edit switch (J. FIT)
- S608 : Disc tray open/close switch (⏏ OPEN/CLOSE)
- S609 : R. Search switch (◀◀)
- S610 : F. Search switch (▶▶)
- S611 : Stop switch (□)
- S612 : Pause switch (❚❚)
- S613 : Play switch (▷)
- S701 : Rest switch
- S790 : Disc tray close detection switch
- S791 : Disc tray open detection switch
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

  No mark: CD STOP ( ): CD PLAY (1 kHz, L+R, 0 dB)

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminum coil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

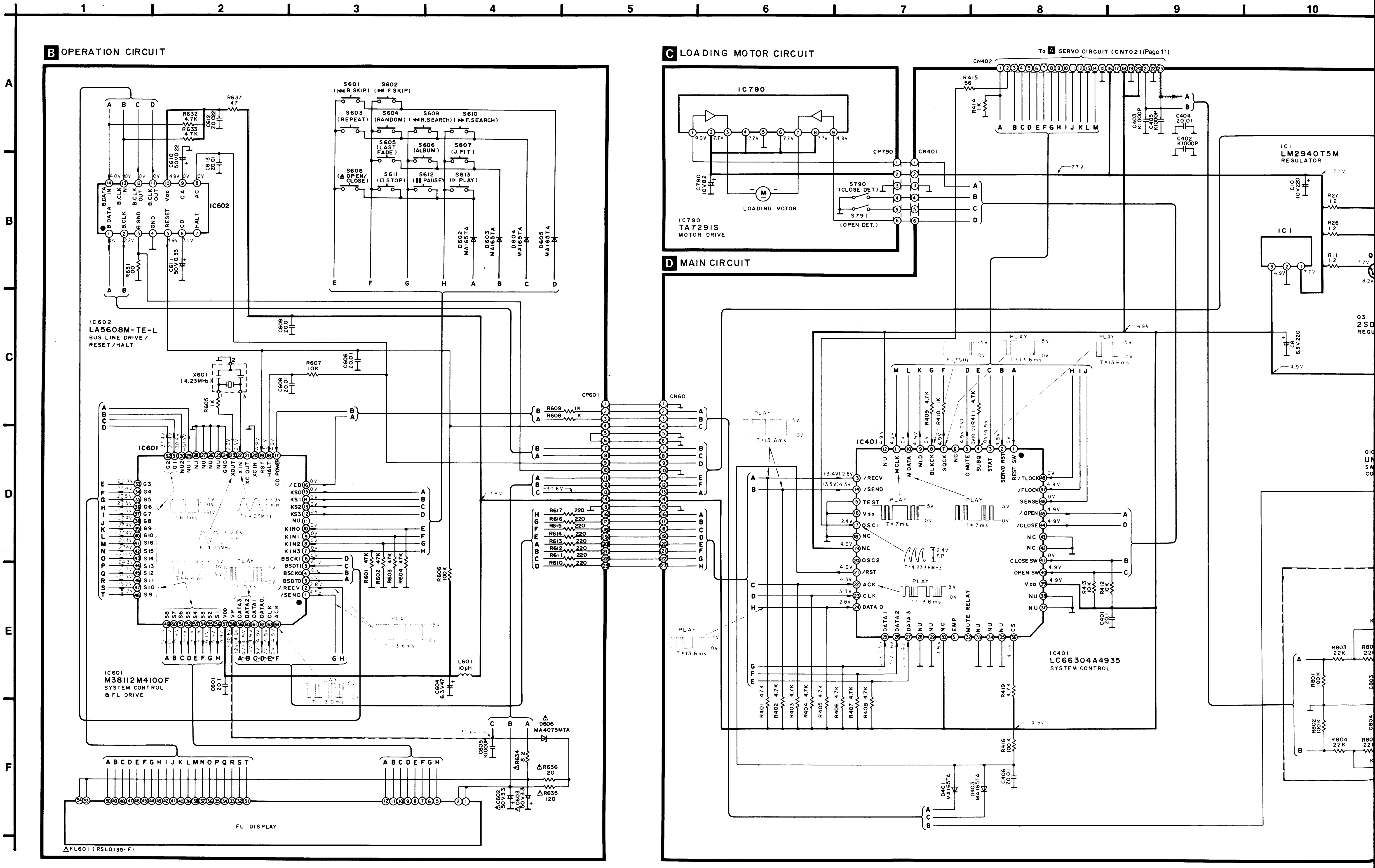
- **This schematic diagram may be modified at any time with the development of new technology.**

- The supply part number is described alone in the replacement parts list.

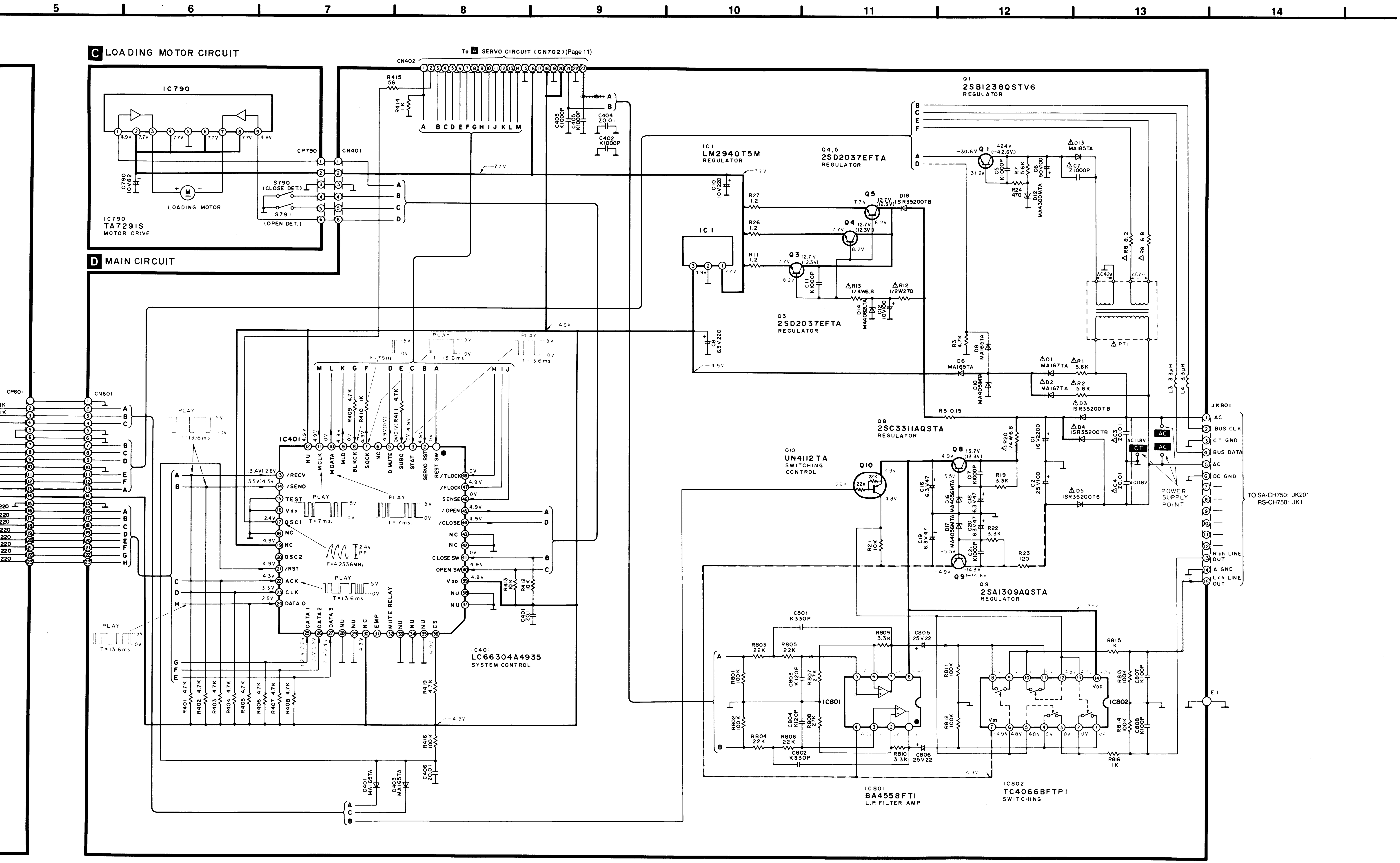
Ref. No	Production Parts No.	Supply Parts No.
IC1	LM2940T5M	LM2940T5
IC801	BA4558FT1	SVIBA4558F

——— : Positive voltage line
- - - - : Negative voltage line
░░░ : CD signal line

■ SCHEMATIC DIAGRAM •LOADING MOTOR, OPERATION AND MAIN CIRCUIT (Parts list on pages 33 and 34.)

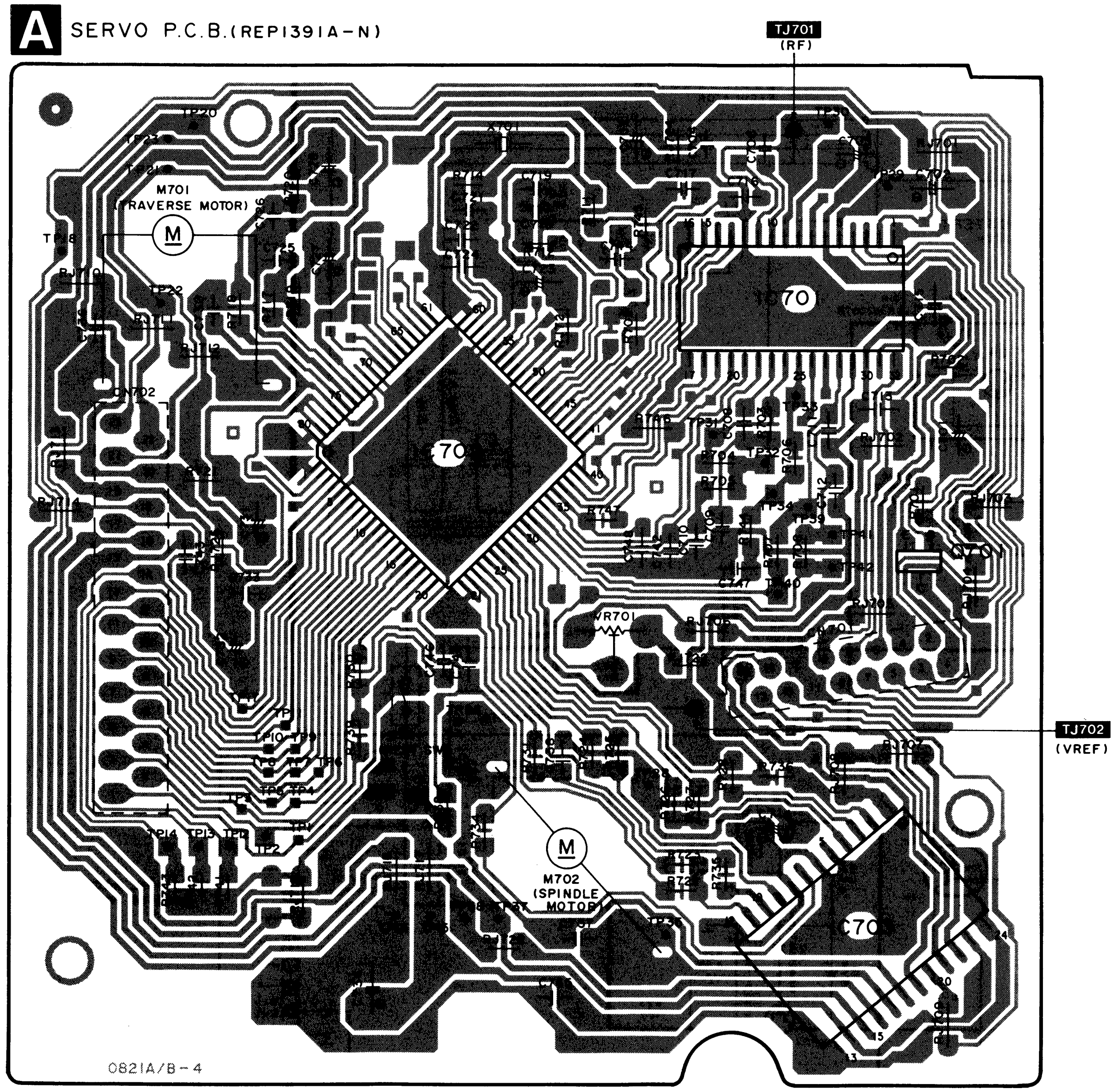

1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
B OPERATION CIRCUIT
S601 (◀◀ R.SKIP)
S602 (▶▶ F.SKIP)
S603 (REPEAT)
S604 (RANDOM)
S609 (◀◀ R.SEARCH)
S610 (▶▶ F.SEARCH)
S605 (LAST FADE)
S606 (ALBUM)
S607 (J.FIT)
S608 (≜ OPEN/CLOSE)
S611 (□ STOP)
S612 (❚❚ PAUSE)
S613 (▷ PLAY)
D602 MA165TA
D603 MA165TA
D604 MA165TA
D605 MA165TA
IC602
IC602 LA5608M-TE-L BUS LINE DRIVE / RESET / HALT
X601 (4.23MHz)
IC601
IC601 M38112M4100F SYSTEM CONTROL & FL DRIVE
L601 10μH
D606 MA4075MTA
FL DISPLAY
FL601 (RSL0135-F)
CP601
CN601
C LOADING MOTOR CIRCUIT
IC790
IC790 TA7291S MOTOR DRIVE
LOADING MOTOR
S790 (CLOSE DET.)
S791 (OPEN DET.)
CP790
CN401
D MAIN CIRCUIT
To A SERVO CIRCUIT (CN702) (Page 11)
CN402
IC1 LM2940T5M REGULATOR
Q3 2SD
IC401
IC401 LC66304A4935 SYSTEM CONTROL
D401 MA165TA
D403 MA165TA
PLAY
T=13.6ms
F=4.2336MHz
F=4.23MHz
T=6.4ms
T=7ms
F=75Hz

CUIT (Parts list on pages 33 and 34.)

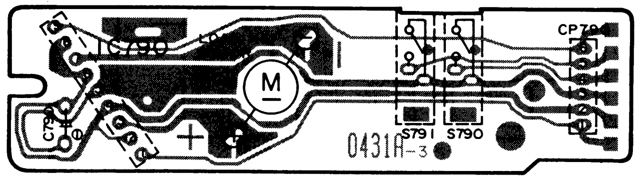

5
6
7
8
9
10
11
12
13
14
C LOADING MOTOR CIRCUIT
IC790
IC790
TA7291S
MOTOR DRIVE
LOADING MOTOR
C790
10V82
CP790
CN401
S790
(CLOSE DET.)
S791
(OPEN DET.)
To A SERVO CIRCUIT (CN702) (Page 11)
CN402
R415
56
R414
1K
C403
K1000P
C405
K1000P
C404
Z0.01
C402
K1000P
D MAIN CIRCUIT
IC1
LM2940T5M
REGULATOR
C10
10V220
R27
1.2
R26
1.2
R11
1.2
Q5
D18
1SR35200TB
Q4
Q3
Q4,5
2SD2037EFTA
REGULATOR
Q3
2SD2037EFTA
REGULATOR
C11
K1000P
ΔR13
1/4W6.8
ΔR12
1/2W270
D14
MA4082LTA
C12
10V100
C8
6.3V220
Q1
2SB1238QSTV6
REGULATOR
C5
K1000P
R7
5.6K
C6
50V100
R24
470
D12
MA4300MTA
ΔD13
MA185TA
ΔC7
Z1000P
ΔR8 8.2
ΔR9 6.8
AC42V
AC74
ΔPT1
R3
4.7K
D8
MA165TA
D6
MA165TA
D10
MA4056MTA
ΔD1
MA167TA
ΔR1
5.6K
ΔD2
MA167TA
ΔR2
5.6K
ΔD3
1SR35200TB
ΔD4
1SR35200TB
ΔD5
1SR35200TB
R5 0.15
L3 3.3μH
L4 3.3μH
Q8
2SC3311AQSTA
REGULATOR
Q10
UN4112TA
SWITCHING
CONTROL
Q10
22K
22K
ΔR20
1/4W6.8
C1
16V2200
C2
25V100
C3
Z0.01
C4
Z0.01
R19
3.3K
C16
6.3V47
C17
K1000P
D16
MA4056MTA
C18
6.3V47
D17
MA4056MTA
C19
6.3V47
C20
6.3V47
C21
K1000P
R22
3.3K
R21
10K
R23
120
Q9
2SA1309AQSTA
REGULATOR
AC
CT
AC11.8V
POWER
SUPPLY
POINT
JK801
AC
BUS CLK
CT GND
BUS DATA
AC
DC GND
Rch LINE
OUT
A GND
Lch LINE
OUT
TO SA-CH750: JK201
RS-CH750: JK1
CP601
CN601
IC401
NU
MCLK
MDATA
MLD
BLKCK
SQCK
NC
D MUTE
SUBQ
STAT
SERVO RST
REST SW
/RECV
/SEND
TEST
Vss
OSC1
NC
NC
OSC2
/RST
ACK
CLK
DATA 0
DATA 1
DATA 2
DATA 3
NU
NU
NC
EMP
MUTE RELAY
NU
NU
NU
CS
/TLOCK
/FLOCK
SENSE
/OPEN
/CLOSE
NC
NC
CLOSE SW
OPEN SW
VDD
NU
NU
PLAY
T=13.6ms
T=7ms.
F:75Hz
F:4.2336MHz
2.4V P-P
R409
4.7K
R410
1K
R411
4.7K
R413
10K
R412
10K
C401
Z0.1
R401 4.7K
R402 4.7K
R403 4.7K
R404 4.7K
R405 4.7K
R406 4.7K
R407 4.7K
R408 4.7K
R419
4.7K
R416
100K
C406
Z0.1
D401
MA165TA
D403
MA165TA
IC401
LC66304A4935
SYSTEM CONTROL
C801
K330P
R803
22K
R805
22K
R809
3.3K
C805
25V22
R801
100K
R802
100K
C803
K120P
R807
27K
C804
K120P
R808
27K
IC801
R804
22K
R806
22K
C802
K330P
R810
3.3K
C806
25V22
R811
100K
R812
100K
R815
1K
R816
1K
R813
100K
C807
K100P
R814
100K
C808
K100P
IC802
VDD
Vss
E1
IC801
BA4558FT1
L.P. FILTER AMP
IC802
TC4066BFTP1
SWITCHING

■ PRINTED CIRCUIT BOARD DIAGRAM

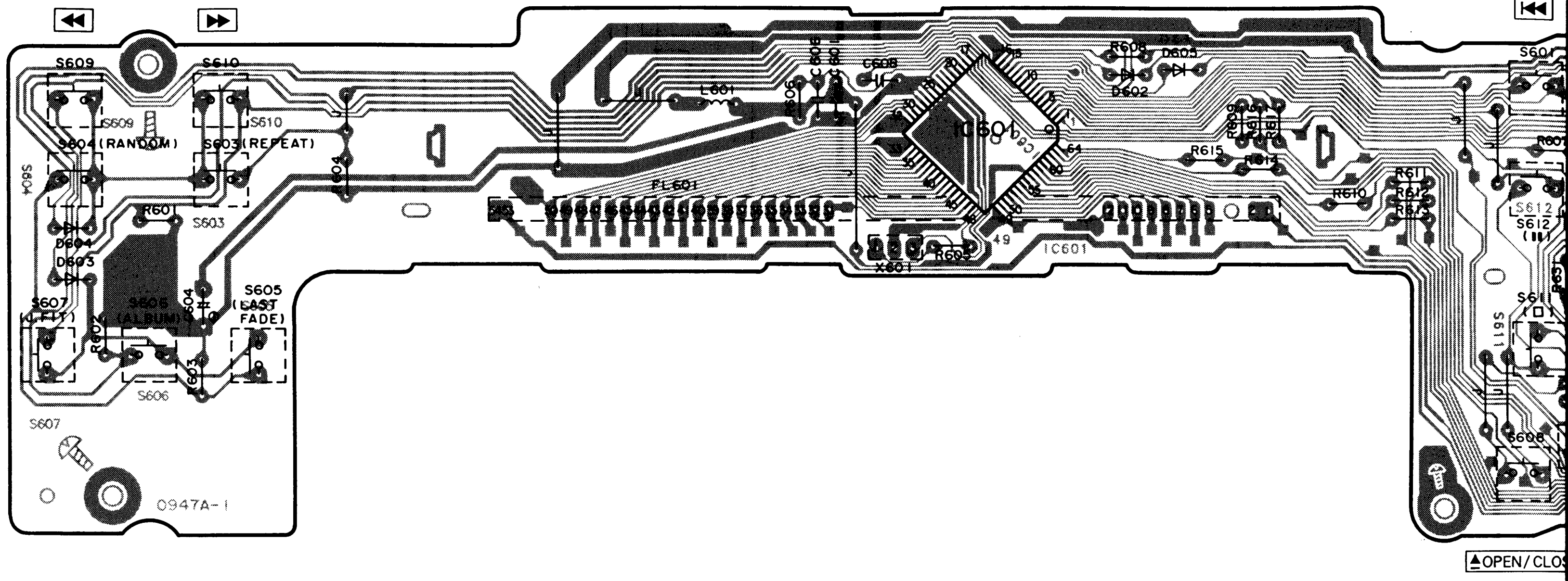
A SERVO P.C.B.(REP1391A-N)


TJ701
(RF)
TJ702
(VREF)
M701
(TRAVERSE MOTOR)
M702
(SPINDLE MOTOR)
IC701
IC702
IC703
VR701
CN702
TP20
TP18
TP22
0821A/B-4

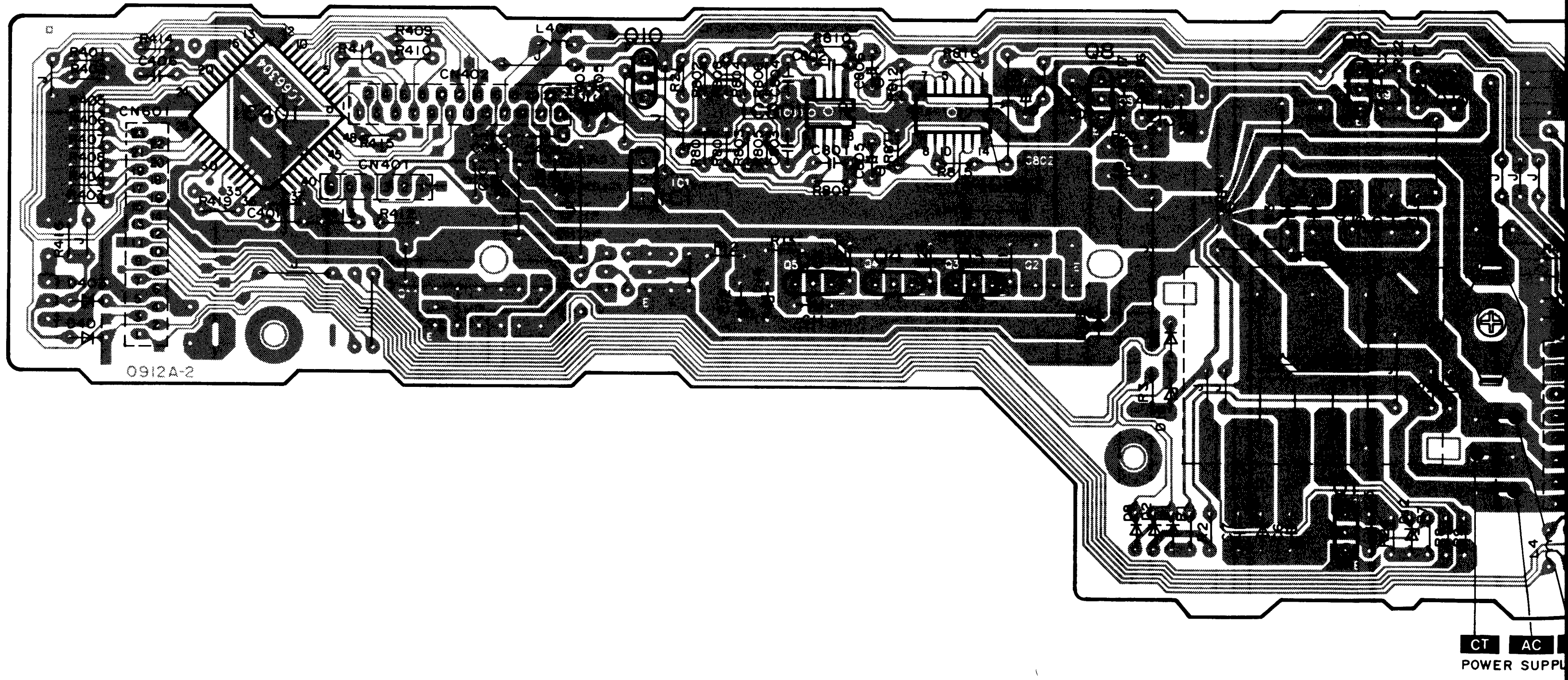
C LOADING MOTOR P.C.B.(REP0767)


IC790
CP70
S791
S790
0431A-3

B OPERATION P.C.B.(REP1479A-S)


◀◀
▶▶
◀◀
S609
S610
S604 (RANDOM)
S603 (REPEAT)
S607 (LEFT)
S606 (ALBUM)
S605 (LAST FADE)
IC601
FL601
L601
X601
D602
D603
R615
R610
S612
S611
S608
▲OPEN/CLOS
0947A-1

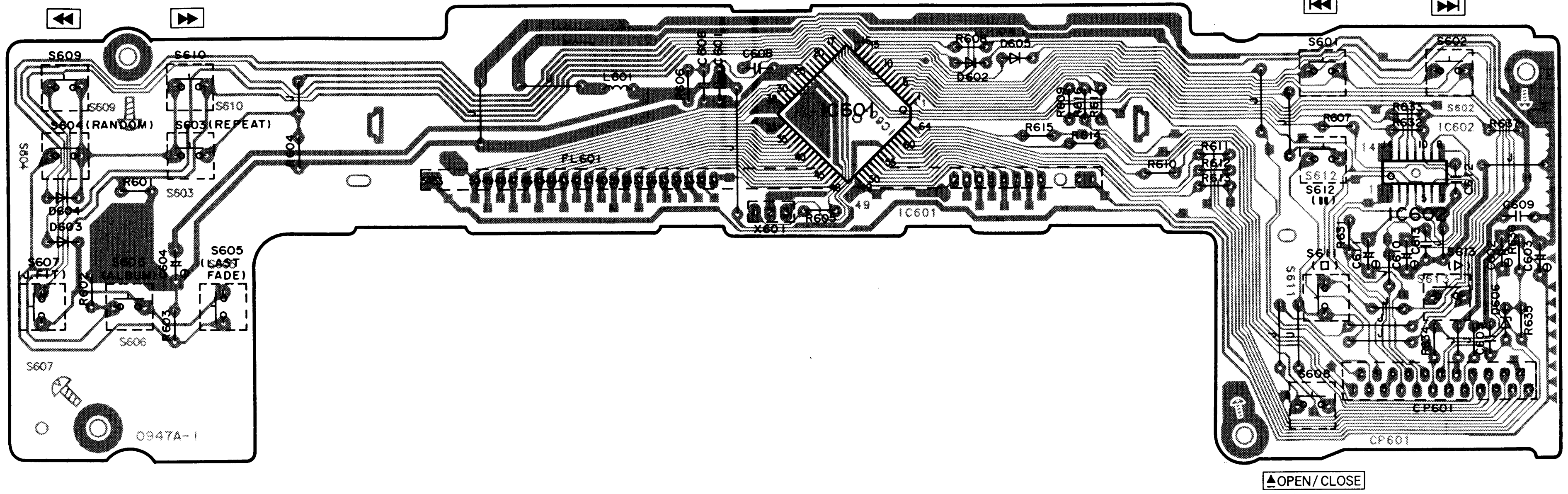
D MAIN P.C.B.(REP1446A-M)


CN601
CN401
Q10
L401
R409
R410
C802
CT
AC
POWER SUPPL
0912A-2

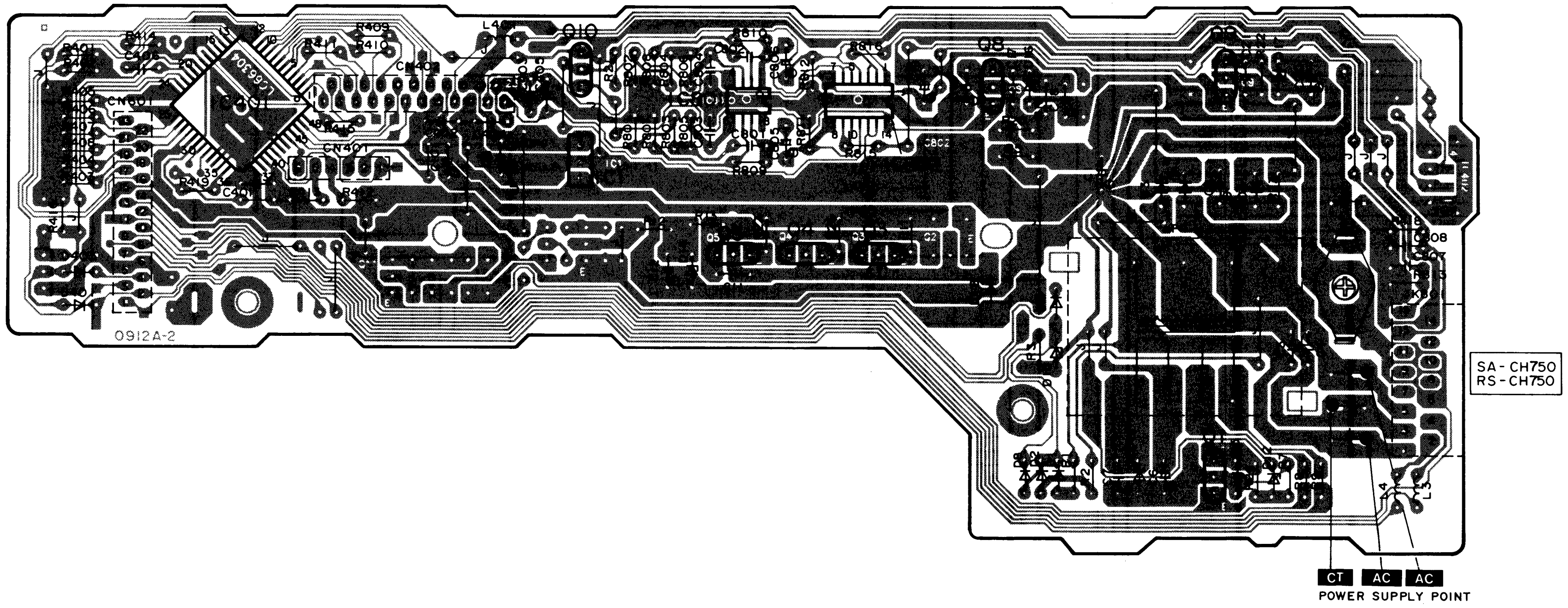
5 6 7 8 9 10 11 12 13 14

TJ702 (VREF)

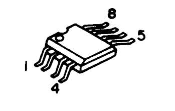
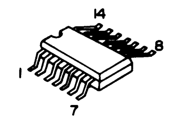
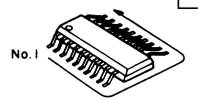
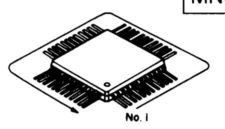
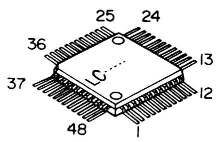
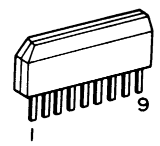
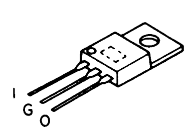
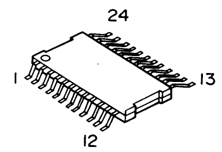
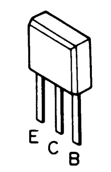
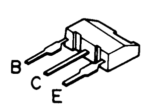
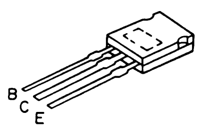
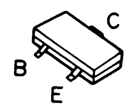
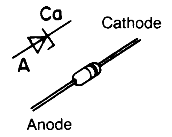
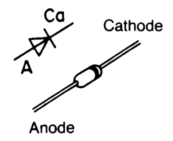
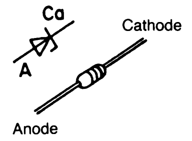
B OPERATION P.C.B.(REP1479A-S)


◀◀
▶▶
S609
S610
S604(RANDOM)
S603(REPEAT)
S605 (LAST FADE)
S606 (ALBUM)
S607 (LEFT)
L601
IC601
PL601
X601
R615
R610
R607
S601
S602
S609
S611
S612
IC602
CP601
0947A-1
|◀◀
▶▶|
▲OPEN/CLOSE

D MAIN P.C.B.(REP1446A-M)

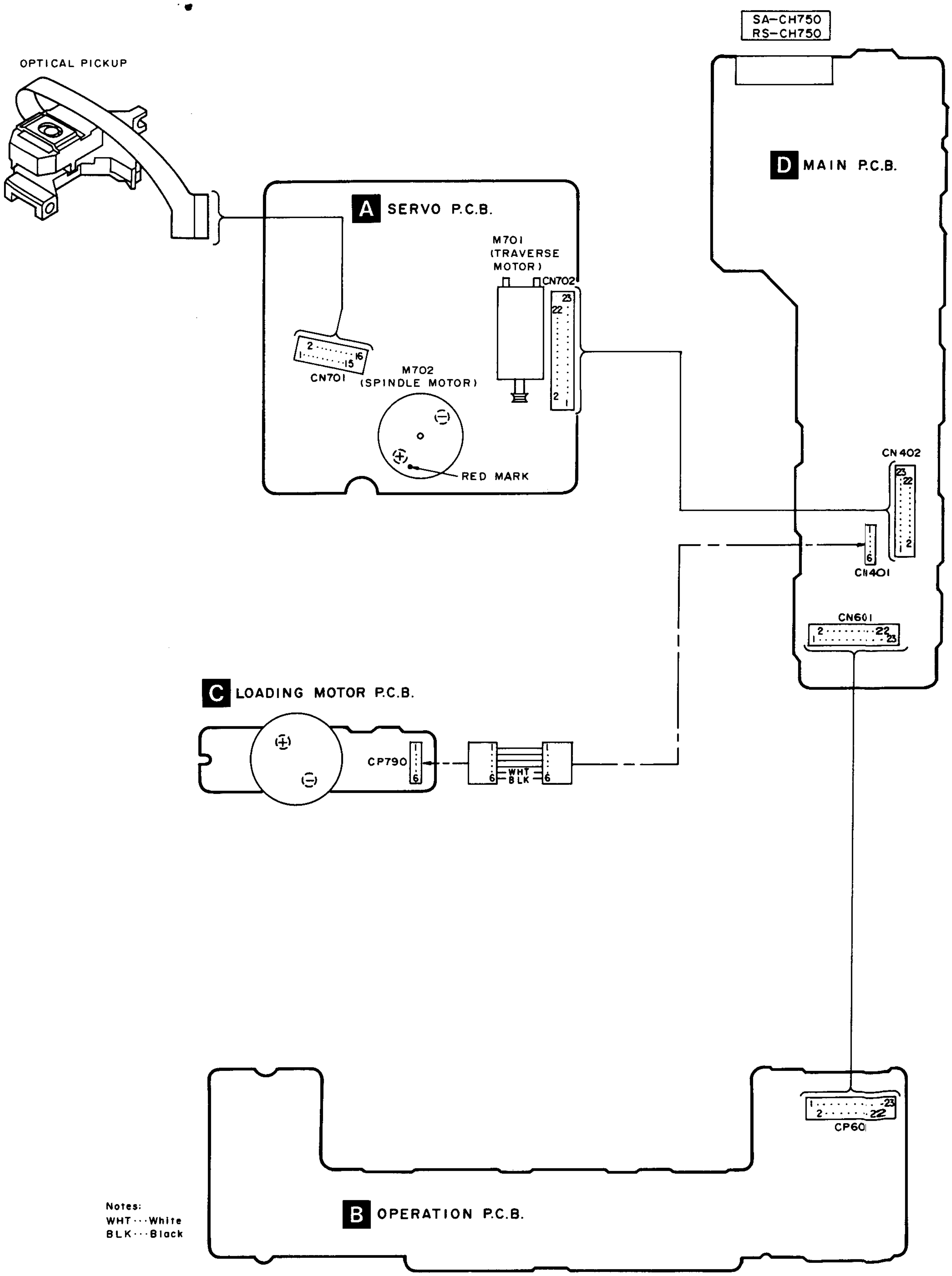

CN601
CN401
IC1
Q10
Q8
0912A-2
SA-CH750
RS-CH750
CT
AC
AC
POWER SUPPLY POINT

•Terminal guide of IC's, transistors and diodes

BA4558FT1 	TC4066BFTP1 	LA5608M-TE-L 14Pin AN8802SCE1V 32Pin 	
M38112M4100F 64Pin MN66271 80Pin 		LC66304A4935  25 24 36 13 37 12 48 1	TA7291S 
LM2940T5M 	AN8389SE1 		2SA1309AQSTA 2SC3311AQSTA UN4112TA
2SB1238QSTV6 	2SD2037EFTA 	2SB709STW 	MA4300MTA  Ca Cathode A Anode
 Ca Cathode A Anode	MA165TA MA167TA MA185TA 1SR35200TB	 Ca Cathode A Anode	MA4051MTA MA4056MTA MA4075MTA MA4082LTA

•This circuit board diagram may be modified at any time with the development of new technology.

■ WIRING CONNECTION DIAGRAM


SA–CH750
RS–CH750
OPTICAL PICKUP
A SERVO P.C.B.
D MAIN P.C.B.
M701
(TRAVERSE
MOTOR)
CN702
23
22
2
1
CN701
2
1
16
15
M702
(SPINDLE MOTOR)
RED MARK
CN402
23
22
2
1
CN401
1
6
CN601
2
1
22
23
C LOADING MOTOR P.C.B.
CP790
1
6
WHT
BLK
B OPERATION P.C.B.
CP601
1
2
23
22

Notes:
WHT···White
BLK···Black

■ MEASUREMENTS AND ADJUSTMENTS

Caution:

- It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.)
  With the unit turned "on", laser radiation is emitted from the pickup lens.
  Avoid exposure to the laser beam, especially when performing adjustments.

■ This unit (SL-CH750) is actuated by power supply from the tuner amplifier SA-CH750. If you wish to actuate this unit without using the tuner amplifier SA-CH750 for checking or repairing, follow below procedure.

- **Apply AC 10 V between AC (J1)–CT (J3)–AC (J2).**

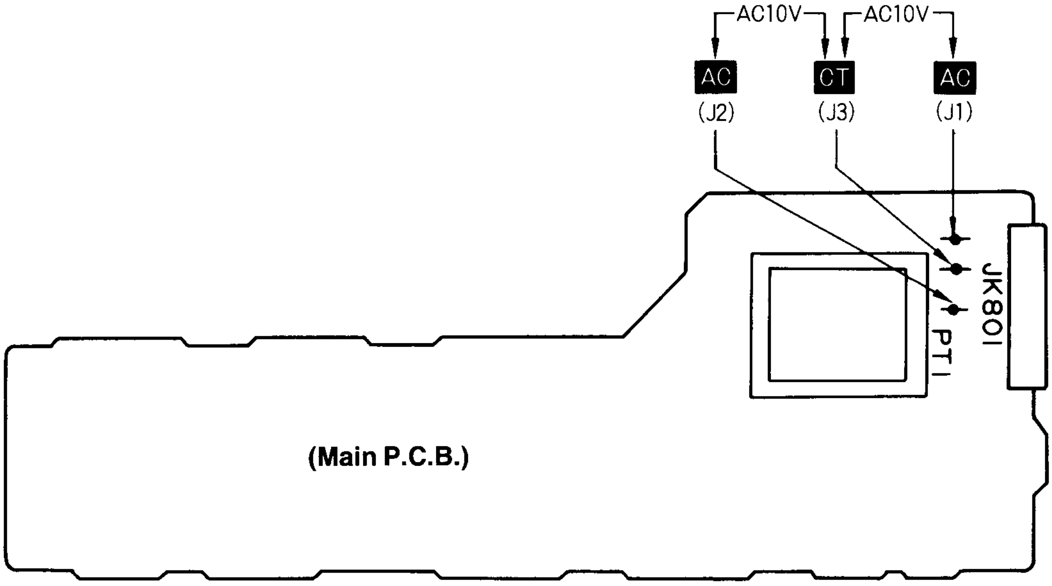

AC10V
AC10V
AC
(J2)
CT
(J3)
AC
(J1)
JK801
PT1
(Main P.C.B.)

Fig. 1

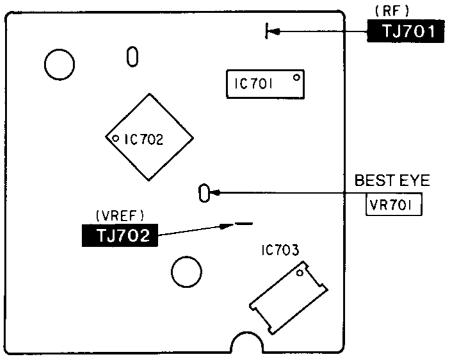

(RF)
TJ701
IC701
IC702
BEST EYE
VR701
(VREF)
TJ702
IC703

Fig. 2

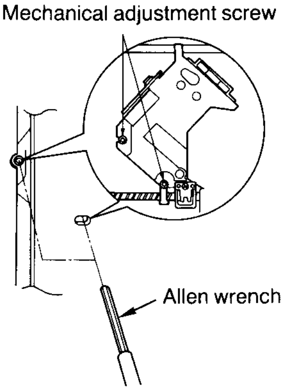

Mechanical adjustment screw
Allen wrench

Fig. 3

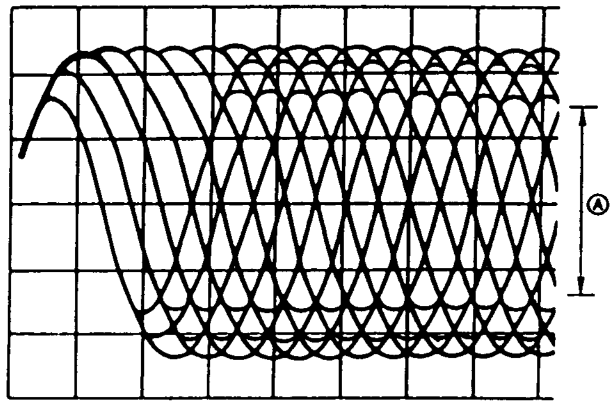
Measuring Instruments and Special Tools

- Test disc
  1. Playability test disc (SZZP1054C)
  2. Uneven test disc (SZZP1056C)
- Allen wrench (M2.0) (SZZP1101C)
- Oscilloscope

(1) MECHANICAL ADJUSTMENT

- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

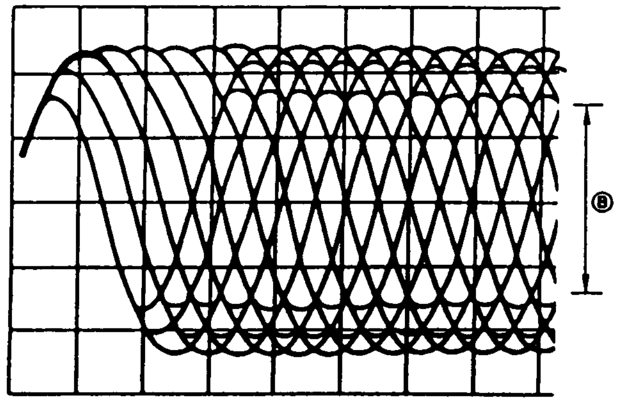
1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT .... 200 mV
   SWEEP .... 0.5 μsec
   Input coupling .... AC
2. Switch the player power **ON**, and play track **19** on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude on the oscilloscope is maximize. (Shown in Fig. 3)
5. After completing the adjustment, lock the **mechanical adjustments** with lock paint (RZZ0L01).



Ⓐ Maximize the amplitude.

(2) BEST EYE (PD BALANCE) ADJUSTMENT

1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT .... 200 mV
   SWEEP .... 0.5 μsec
   Input coupling .... AC
2. Switch the player power **ON**, and play the 1 kHz (track 1) on test disc (SZZP1054C).
3. Adjust **VR701 until the RF signal eye pattern amplitude is maximized.** (Shown in Fig. 2)



Ⓑ Maximize the amplitude.

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

·Checking Skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

·Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

·Checking Playability

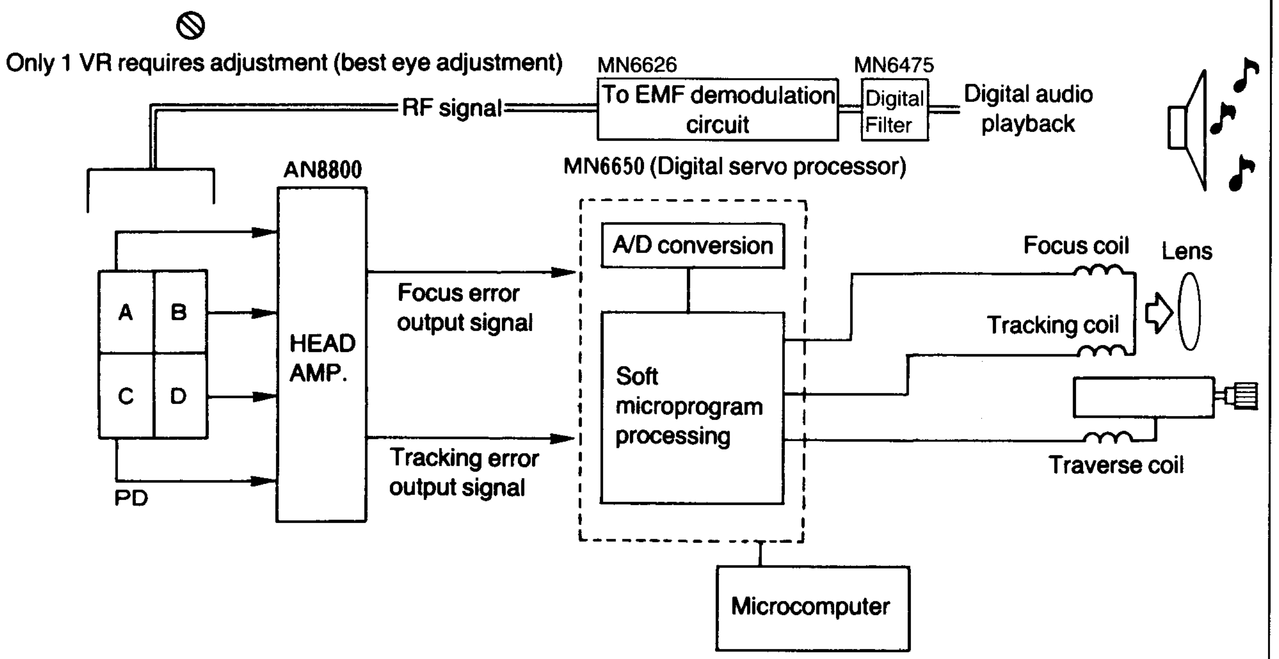
1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

■ NEW DIGITAL SERVO CIRCUIT

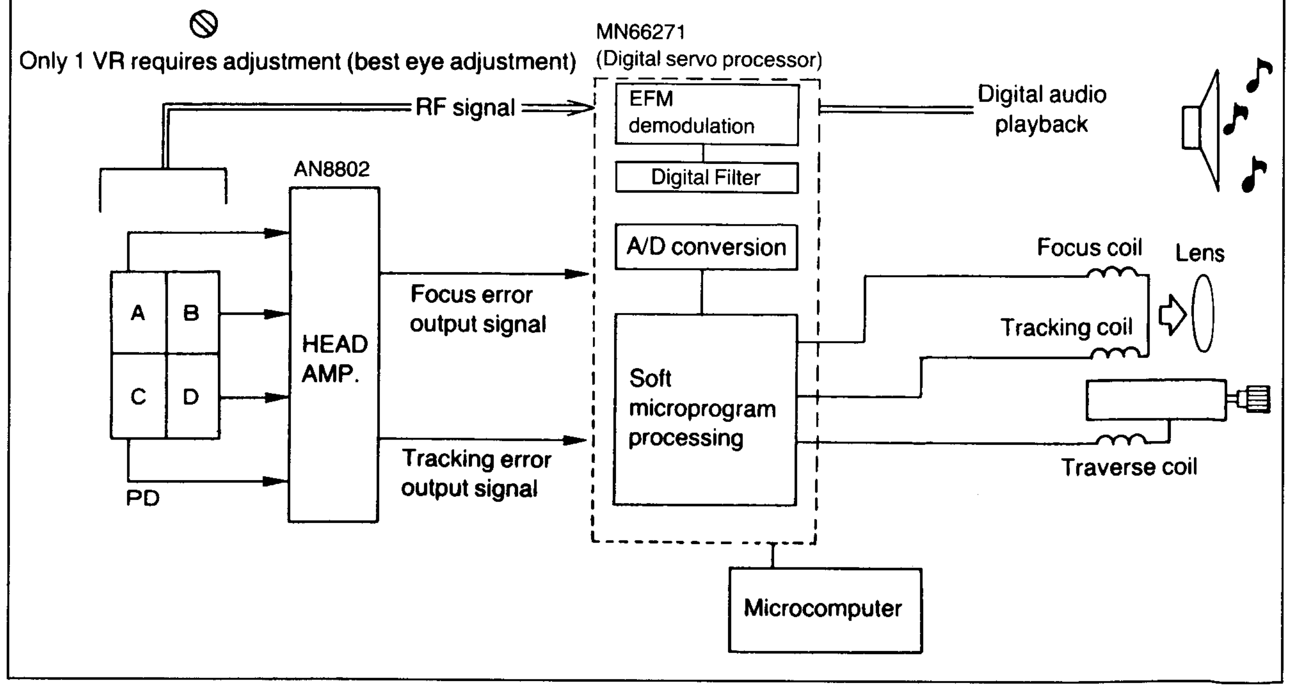
This model employs a new digital servo circuit. Compared to the old digital servo circuit, the following points have been improved.

1. **Reduced operated noise**
   Loading mechanism 2-level speed reducer
2. **Reduced access time**
   [(old) 2.9 seconds→(new) 1.9 seconds]
   Change of traverse gear
3. **Improved vibration resistance**
   Rubber and spring 2-level floating mechanism
   [fo=50 Hz (old)→20 Hz (new)]
4. **Reduced number of parts**
   Use of a single super IC tip
   3 chips (MN6626, MN6650, MN6475) are reduced to a single chip (MN66271)

DIGITAL SERVO SYSTEM (OLD)

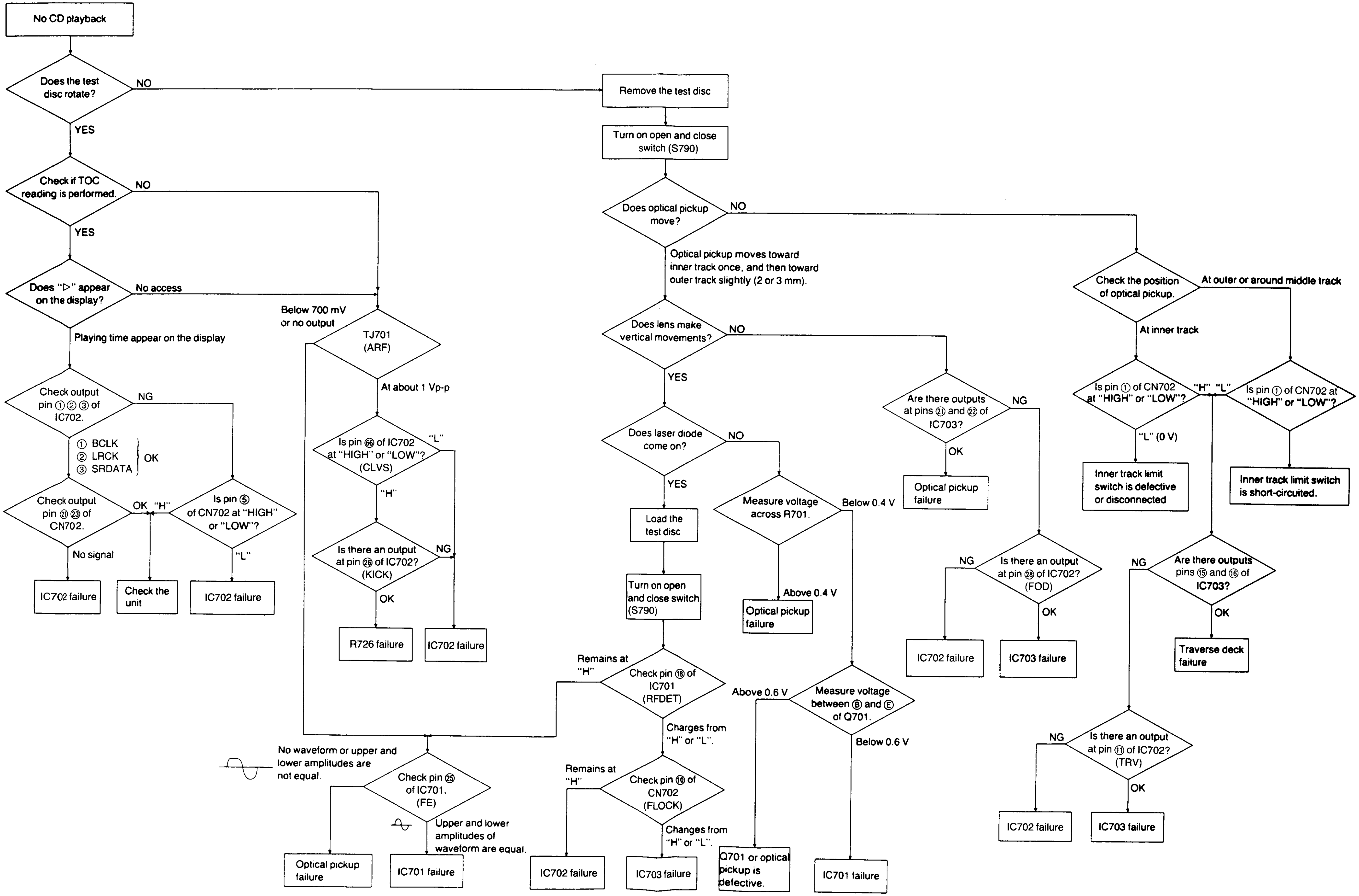

⃠
Only 1 VR requires adjustment (best eye adjustment)
MN6626
MN6475
RF signal
To EMF demodulation circuit
Digital Filter
Digital audio playback
AN8800
MN6650 (Digital servo processor)
A/D conversion
Focus coil
Lens
A
B
C
D
HEAD AMP.
Focus error output signal
Tracking coil
Soft microprogram processing
Tracking error output signal
Traverse coil
PD
Microcomputer

DIGITAL SERVO SYSTEM (NEW)


⃠
Only 1 VR requires adjustment (best eye adjustment)
MN66271
(Digital servo processor)
RF signal
EFM demodulation
Digital Filter
Digital audio playback
AN8802
A/D conversion
Focus coil
Lens
A
B
C
D
HEAD AMP.
Focus error output signal
Tracking coil
Soft microprogram processing
Tracking error output signal
Traverse coil
PD
Microcomputer

- **Refer to the service manual for Model No. SL-CH7 (Order No. AD9104084C8) for information on "DIGITAL SERVO SYSTEM" and "CHECKING THE OPERATION PROBLEMS ON THE TRAVERSE DECK (OPTICAL PICKUP)".**

■ TROUBLESHOOTING GUIDE


No CD playback
Does the test disc rotate?
NO
YES
Remove the test disc
Turn on open and close switch (S790)
Check if TOC reading is performed.
NO
YES
Does optical pickup move?
NO
Optical pickup moves toward inner track once, and then toward outer track slightly (2 or 3 mm).
Does "▷" appear on the display?
No access
Playing time appear on the display
Check the position of optical pickup.
At outer or around middle track
At inner track
Below 700 mV or no output
TJ701 (ARF)
At about 1 Vp-p
Does lens make vertical movements?
NO
YES
Is pin ① of CN702 at "HIGH" or "LOW"?
"H"
"L"
Is pin ① of CN702 at "HIGH" or "LOW"?
"L" (0 V)
Check output pin ①②③ of IC702.
NG
① BCLK
② LRCK
③ SRDATA
OK
Is pin ⑯ of IC702 at "HIGH" or "LOW"? (CLVS)
"L"
"H"
Are there outputs at pins ㉑ and ㉒ of IC703?
NG
OK
Optical pickup failure
Does laser diode come on?
NO
YES
Inner track limit switch is defective or disconnected
Inner track limit switch is short-circuited.
Check output pin ㉑㉓ of CN702.
OK
"H"
No signal
Is pin ⑤ of CN702 at "HIGH" or "LOW"?
"L"
Is there an output at pin ㉖ of IC702? (KICK)
NG
OK
Load the test disc
Measure voltage across R701.
Below 0.4 V
Above 0.4 V
Optical pickup failure
Turn on open and close switch (S790)
NG
Is there an output at pin ㉘ of IC702? (FOD)
OK
NG
Are there outputs pins ⑮ and ⑯ of IC703?
OK
IC702 failure
Check the unit
IC702 failure
R726 failure
IC702 failure
IC702 failure
IC703 failure
Traverse deck failure
Remains at "H"
Check pin ⑱ of IC701 (RFDET)
Charges from "H" or "L".
Above 0.6 V
Measure voltage between Ⓑ and Ⓔ of Q701.
Below 0.6 V
No waveform or upper and lower amplitudes are not equal.
Check pin ㉕ of IC701. (FE)
Upper and lower amplitudes of waveform are equal.
Remains at "H"
Check pin ⑩ of CN702 (FLOCK)
Changes from "H" or "L".
NG
Is there an output at pin ⑪ of IC702? (TRV)
OK
Optical pickup failure
IC701 failure
IC702 failure
IC703 failure
Q701 or optical pickup is defective.
IC701 failure
IC702 failure
IC703 failure

■ FUNCTION OF IC TERMINALS

●IC401 (LC66304A4935)

Pin No.	Pin Function	I/O	Description
1	REST SW	I	Innermost track sense switch status
2	SERVO RST	I	Reset signal input
3	STAT	I	Status signal input
4	SUBQ	I	Subcode Q input
5	D MUTE	O	Muting signal output
6	NC	—	——
7	SQCK	O	External clock for subcode Q register
8	BLKCK	I	Subcode block clock input
9	MLD	O	Microprocessor command load signal
10	MDATA	O	Microprocessor command data
11	MCLK	O	Microprocesser command clock
12	NU	—	Tied high
13	/RECV	I	Send enable
14	/SEND	I	Receive enable
15	TEST	—	GND
16	V_{SS}		
17	OSC1	I	Clock input from IC702
18	NC	—	GND
19	NC	—	Tied high
20	OSC2	—	——
21	/RST	O	Reset signal output
22	ACK	I	Acknowledge input for communication with IC601
23	CLK	I	Clock for communication with IC601

Pin No.	Pin Function	I/O	Description
24	DATA0	I	Parallel 4-bit data from IC601
25	DATA1		
26	DATA2		
27	DATA3		
28	NU	—	GND
29			
30	NC	—	Tied high
31	EMP	—	——
32	MUTE RELAY	—	——
33	NU	—	GND
34			
35			
36	CS	—	——
37	NU	—	GND
38			
39	V_{DD}	I	Power supply
40	OPEN SW	I	Disc tray "open" sense switch status
41	CLOSE SW	I	Disc tray "close" sense switch status
42	NC	—	GND
43			
44	/CLOSE	O	Close Disc Tray command output
45	/OPEN	O	Open Disc Tray command output
46	SENSE	I	Sense signal input
47	/FLOCK	I	Focus servo pull-in signal
48	/TLOCK	I	Tracking servo pull-in signal

●IC601 (M38112M4100F)

Pin No.	Pin Function	I/O	Description
1	/SEND	O	Send enable for communication with IC401
2	/RECV	O	Receive enable for communication with IC401
3	BSDTO	O	Bus data output
4	BSCKO	O	Bus clock output
5	BSDTI	I	Bus data input
6	BSCKI	I	Bus clock input
7	KIN3	I	Key matrix input
8	KIN2		
9	KIN1		
10	KIN0		
11	NU	—	——
12	KS3	O	Key scan strobe outputs
13	KS2		
14	KS1		
15	KS0		
16	/CD	O	CD muting signal output
17	CD POWER	I	CD drive power supply control input
18	HALT	I	Power failure sense signal input
19	RST	I	Reset signal input
20	XC IN	—	GND
21	XC OUT	—	——

Pin No.	Pin Function	I/O	Description
22	X IN	I	Crystal oscillator terminal
23	X OUT	O	Crystal oscillator terminal
24	GND	—	GND
25	NU	—	GND
26			
27			
28			
29	NU1	O	——
30	NU2		
31 ≀ 40	G1 ≀ G10	O	FL grid drive signal output
41 ≀ 56	S16 ≀ S1	O	FL segment signal output
57	V_{DD}	I	Power supply
58	VP	I	FL pull-down power supply
59	DATA3	O	Data output from IC401
60	DATA2		
61	DATA1		
62	DATA0		
63	CLK	O	Clock for communication with IC401
64	ACK	O	Acknowledge output for communication with IC401

●IC703 (AN8389SE1)

Pin No.	Terminal Name	I/O	Function
1	V_{CC}	I	Power supply
2	VREF	I	VREF input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	Ground connection
6	NC	—	No connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (no use, open)

Pin No.	Terminal Name	I/O	Function
13	$PV_{CC}1$	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1−	O	Motor driver (1) reverse-action output
16	D1+	O	Motor driver (1) forward-action output
17	D2−	O	Motor driver (2) reverse-action output
18	D2+	O	Motor driver (2) forward-action output
19	D3−	O	Motor driver (3) reverse-action output
20	D3+	O	Motor driver (3) forward-action output
21	D4−	O	Motor driver (4) reverse-action output
22	D4+	O	Motor driver (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	$PV_{CC}2$	I	Power supply (2) for driver

●IC701

Pin No.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

tion
inal
inal
—
tput
tput
pply
1
on with IC401
r 401

on
river
for driver
e-action output
d-action output
e-action output
d-action output
e-action output
d-action output
e-action output
d-action output
for driver
river

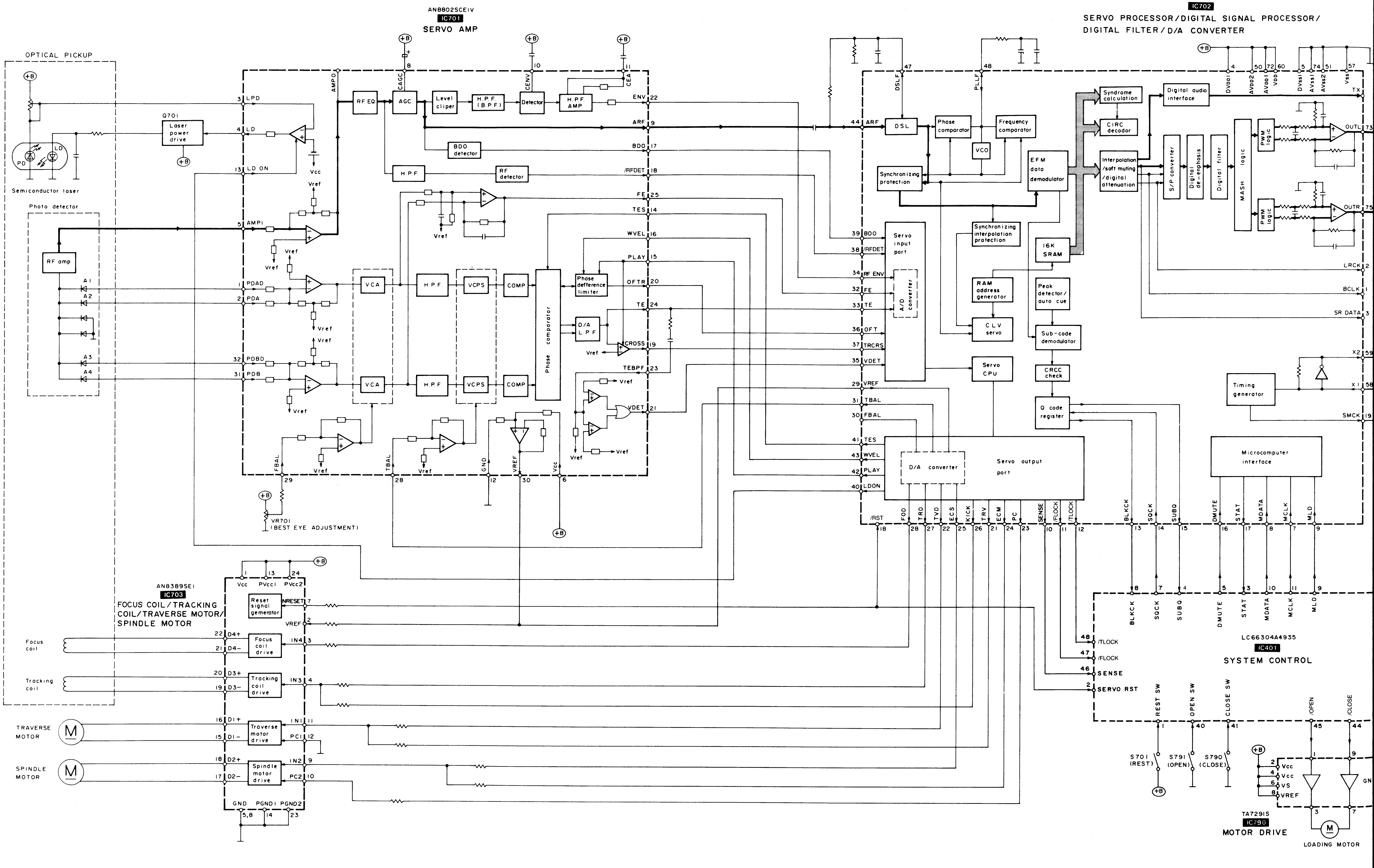
•IC701 (AN8802SCE1V)

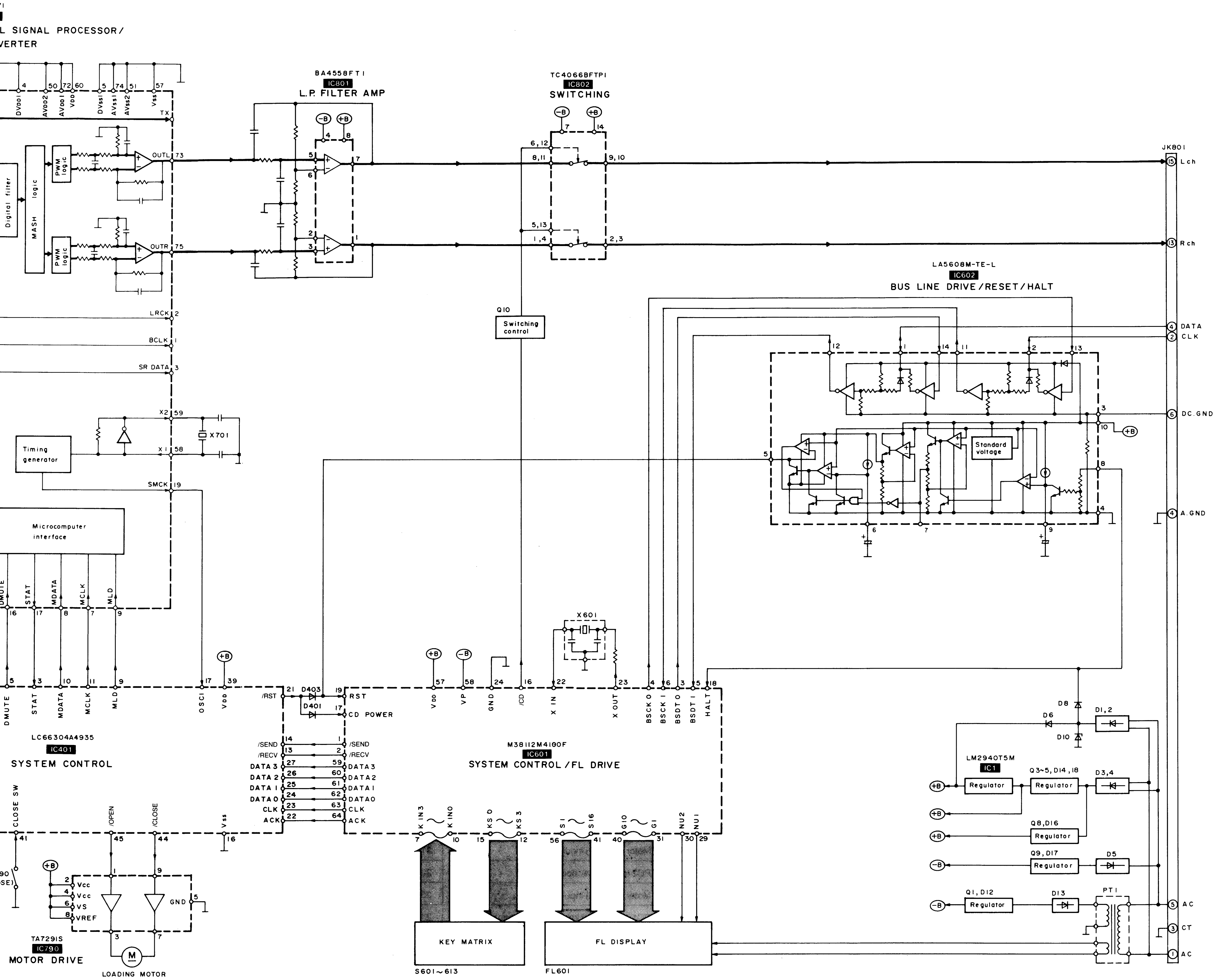
Pin No.	Terminal Name	I/O	Function
1	PDAD	I	PD A channel signal input with delay
2	PDA	I	PD A channel signal input without delay
3	LPD	I	Laser PD connection
4	LD	O	Power supply for LD driving
5	AMPI	I	RF amplifier input
6	V_{CC}	I	Power supply connection
7	AMPO	O	RF amplifier output (no use, open)
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CENV	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	GND	—	Ground connection
13	LDON	I	ON/OFF input of LD APC ("H": ON, "L": OFF)
14	TES	I	Tracking error shunt signal input ("H": shunt)
15	PLAY	I	Play signal input ("H": PLAY)
16	WVEL	I	WVEL control
17	BDO	O	BDO output
18	/RFDET	O	NRFDET output
19	CROSS	O	CROSS output
20	OFTR	O	OFTR output
21	VDET	O	VDET output
22	ENV	O	ENV output
23	TEBPF	I	Vibration detection input
24	TE	O	Tracking error output
25	FE	O	Focus error output
26	PTO	O	Potentioamplifier output (no use, open)
27	PTI	I	Potentioamplifier inversion input (no use, open)
28	TBAL	I	Tracking balance input
29	FBAL	I	Focus balance input
30	VREF	O	VREF output
31	PDB	I	PD B channel signal input without delay
32	PDBD	I	PD B channel signal input with delay

•IC702 (MN66271)

Pin No.	Terminal Name	I/O	Function
1	BCLK	O	Bit clock output for serial data (no used, open)
2	LRCK	O	L/R identification signal output (no use, open)
3	SRDATA	O	Serial data output (no used, open)
4	$DV_{DD}1$	I	Power supply input (for digital circuit)
5	$DV_{SS}1$	—	GND (for digital circuit)
6	TX	O	Digital audio interface signal output
7	MCLK	I	Microprocessor command clock signal input (Latches data at first transition)
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sence signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (fBLKCK=75 Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q register
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL="H" (fSMCK=8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL="L" (fSMCK=4.2336 MHz)
20	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK=88.2 KHz) (no use, open)
21	TRV	O	Traverse forced feed output
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output (no use, open)
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	TES	O	Tracking error shunt signal output ("H": shunt)
42	PLAY	O	Play signal out ("H": PLAY)
43	WVEL	O	Double speed status signal output ("H": Double speed)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (no use, open)
47	DSLF	I/O	DSL loop filter
48	PLLF	I/O	PLL loop filter
49	VCOF	I/O	VCO loop filter (no use, open)
50	$AV_{DD}2$	I	Power supply input (for analog circuit)
51	$AV_{SS}2$	—	GND (for analog circuit)
52	EFM	O	EFM signal output (not use, open)
53	PCK	O	PLL extraction clock output (fPCK=4.321 MHz during normal playback) (no use, open)
54	PDO	O	Phase comparison signal of EFM and PCK signals (no use, open)
55	SUBC	O	Sub-code serial data output (no use, open)
56	SBCK	I	Clock input for sub-code serial data (no use, open)
57	V_{SS}	—	GND
58	X1	I	Crystal oscillating circuit input (f=16.9344 MHz)
59	X2	O	Crystal oscillation circuit output (f=16.9344 MHz)
60	V_{DD}	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (no use, open)
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK=7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fFCLK=7.35 kHz, double=14.7 kHz)
64	PFLAG	O	Interpolation flag output ("H": Interpolation) (no use, open)
65	FLAG	O	Flage output (no use, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no use, open)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG) (no use, open)
68	DEMPH	O	De-emphasis ON signal output ("H": ON) (no use, open)
69	RESY	O	Frame resynchronizing signal output (no use, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input
72	$AV_{DD}1$	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	$AV_{SS}1$	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H"; at "L" level, RSEL=L)
77	CSEL	I	Crystal oscillating frequency designation input ("L": 16.9344 MHz, "H": 33/8688 MHz)
78	PSEL	I	Test input (normally, "L") (no use, open)
79	MSEL	I	Output frequency switching for SMCK terminal "H": SMCK=8.4672 MHz "L": SMCK=4.2336 MHz (no use, open)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

■ BLOCK DIAGRAM


AN8802SCEIV
IC701
SERVO AMP
MN66271
IC702
SERVO PROCESSOR/DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/D/A CONVERTER
OPTICAL PICKUP
Semiconductor laser
PD
LD
Photo detector
RF amp
A1
A2
A3
A4
Q701
Laser power drive
LPD
LD
LD ON
AMPI
PDAD
PDA
PDBD
PDB
Vcc
Vref
AMPO
CAGC
CENV
CEA
RF EQ
AGC
Level cliper
H.P.F (B.P.F)
Detector
H.P.F AMP
BDO detector
H.P.F
RF detector
VCA
VCPS
COMP
Phase comparator
Phase defference limiter
D/A L.P.F
ENV
ARF
BDO
/RFDET
FE
TES
WVEL
PLAY
OFTR
TE
CROSS
TEBPF
VDET
FBAL
TBAL
GND
VREF
VR701 (BEST EYE ADJUSTMENT)
+B
DSLF
PLLF
DSL
Phase comparator
Frequency comparator
VCO
Synchronizing protection
EFM data demodulator
Syndrome calculation
CIRC decoder
Interpolation /soft muting /digital attenuation
Digital audio interface
S/P converter
Digital de-emphasis
Digital filter
MASH logic
PWM logic
OUTL
OUTR
TX
DVDD1
AVDD2
AVDD1
VDD
DVss1
AVss1
AVss2
Vss
LRCK
BCLK
SR DATA
X2
X1
SMCK
Timing generator
Servo input port
A/D converter
RF ENV
OFT
TRCRS
VDET
VREF
Synchronizing interpolation protection
16K SRAM
RAM address generator
CLV servo
Peak detector/ auto cue
Sub-code demodulator
CRCC check
Q code register
Servo CPU
Servo output port
D/A converter
LDON
Microcomputer interface
/RST
FOD
TRD
TVD
ECS
KICK
TRV
ECM
PC
SENSE
/FLOCK
/TLOCK
BLKCK
SQCK
SUBQ
DMUTE
STAT
MDATA
MCLK
MLD
AN8389SE1
IC703
FOCUS COIL/TRACKING COIL/TRAVERSE MOTOR/ SPINDLE MOTOR
Vcc
PVcc1
PVcc2
Reset signal generator
NRESET
VREF
Focus coil drive
IN4
Tracking coil drive
IN3
Traverse motor drive
IN1
PC1
Spindle motor drive
IN2
PC2
D4+
D4−
D3+
D3−
D1+
D1−
D2+
D2−
GND
PGND1
PGND2
Focus coil
Tracking coil
TRAVERSE MOTOR
SPINDLE MOTOR
M
LC66304A4935
IC401
SYSTEM CONTROL
/TLOCK
/FLOCK
SENSE
SERVO RST
REST SW
OPEN SW
CLOSE SW
/OPEN
/CLOSE
S701 (REST)
S791 (OPEN)
S790 (CLOSE)
Vcc
VS
VREF
TA7291S
IC790
MOTOR DRIVE
LOADING MOTOR
GN


L SIGNAL PROCESSOR/
VERTER
DVDD1
AVDD2
AVDD1
VDD
DVSS1
AVSS1
AVSS2
VSS
TX
Digital filter
MASH logic
PWM logic
OUTL
OUTR
LRCK
BCLK
SR DATA
X2
X1
X701
Timing generator
SMCK
Microcomputer interface
DMUTE
STAT
MDATA
MCLK
MLD
BA4558FT1
IC801
L.P. FILTER AMP
TC4066BFTP1
IC802
SWITCHING
Q10
Switching control
JK801
Lch
Rch
DATA
CLK
DC.GND
A.GND
AC
CT
AC
LA5608M-TE-L
IC602
BUS LINE DRIVE/RESET/HALT
Standard voltage
X601
OSCI
VDD
/RST
D403
D401
RST
CD POWER
VDD
VP
GND
/CD
X IN
X OUT
BSCK O
BSCK I
BSDT O
BSDT I
HALT
LC66304A4935
IC401
SYSTEM CONTROL
M38112M4100F
IC601
SYSTEM CONTROL/FL DRIVE
/SEND
/RECV
DATA 3
DATA 2
DATA 1
DATA 0
CLK
ACK
CLOSE SW
/OPEN
/CLOSE
Vss
K IN3
K IN0
KS 0
KS 3
S1
S16
G10
G1
NU2
NU1
KEY MATRIX
S601~613
FL DISPLAY
FL601
Vcc
Vcc
VS
VREF
GND
TA7291S
IC790
MOTOR DRIVE
M
LOADING MOTOR
D8
D6
D10
D1, 2
LM2940T5M
IC1
Regulator
Q3~5, D14, 18
Regulator
D3, 4
Q8, D16
Regulator
Q9, D17
Regulator
D5
Q1, D12
Regulator
D13
PT1
+B
−B

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Warning: This product uses a diode. Refer to caution statements on page 2.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LM2940T5	I.C, REGULATOR	
IC401	LC66304A4935	I.C, SYSTEM CONTROL	
IC601	M38112M4100F	I.C, FL DRIVE/SYSTEM CONT.	
IC602	LA5608M-TE-L	I.C, BUS LINE/HALT/RESET	
IC701	AN8802SCE1V	I.C, SERVO AMP.	
IC702	MN66271	I.C, SERVO PROCESSOR	
IC703	AN8389SE1	I.C, MOTOR DRIVE	
IC790	TA7291S	I.C, MOTOR DRIVE	
IC801	SVIBA4558F	I.C, L.P.F.	
IC802	TC4066BFTP1	I.C, SWITCHING	
		TRANSISTOR(S)	
Q1	2SB1238QSTV6	TRANSISTOR	
Q3-5	2SD2037EFTA	TRANSISTOR	
Q8	2SC3311A-Q	TRANSISTOR	
Q9	2SA1309A-R	TRANSISTOR	
Q10	UN4112	TRANSISTOR	
Q701	2SB709S	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	⚠
D3-5	1SR35200TB	DIODE	⚠
D6	MA165	DIODE	
D8	MA165	DIODE	
D10	MA4051MTA	DIODE	
D12	MA4300M	DIODE	
D13	MA185TA	DIODE	⚠
D14	MA4082LTA	DIODE	
D16, 17	MA4056MTA	DIODE	
D18	1SR35200TB	DIODE	
D401	MA165	DIODE	
D403	MA165	DIODE	
D602-605	MA165	DIODE	
D606	MA4075MTA	DIODE	⚠
		COIL(S)	
L3, 4	ELEXT3R3KA9	COIL	
L601	ELEXT100KA9	COIL	
		VARIABLE RESISTOR(S)	
VR701	EVNDXAA00B14	V.R, BEST EYE ADJ.	
		OSCILLATOR(S)	
X601	RSXY4M23M01T	OSCILLATOR	
X701	RSXZ16M9M02T	OSCILLATOR	
		DISPLAY(S)	
FL601	RSL0135-F	FL DISPLAY	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, R. SKIP	
S602	EVQ21405R	SW, F. SKIP	
S603	EVQ21405R	SW, REPEAT	
S604	EVQ21405R	SW, RANDOM	
S605	EVQ21405R	SW, LAST FADE	
S606	EVQ21405R	SW, ALBUM	
S607	EVQ21405R	SW, JUST FIT	
S608	EVQ21405R	SW, OPEN/CLOSE	
S609	EVQ21405R	SW, R. SEARCH	
S610	EVQ21405R	SW, F. SEARCH	
S611	EVQ21405R	SW, STOP	
S612	EVQ21405R	SW, PAUSE	
S613	EVQ21405R	SW, PLAY	
S701	RSM0006-P	SW, REST	
S790	RSH1A005	SW, LOADING CLOSE DETECT	
S791	RSH1A005	SW, LOADING OPEN DETECT	
		CONNECTOR(S)	
CN401	RJT029W06VT	CONNECTOR(6P)	
CN402	RJS1A6823	SOCKET(23P)	
CN601	RJS1A6823	SOCKET(23P)	
CN701	RJU035T016-1	SOCKET(16P)	
CN702	RJS1A6723-1Q	SOCKET(23P)	
CP601	RJS1A6723-Q	SOCKET(23P)	
CP790	RJP6G17ZA	CONNECTOR(6P)	
JK801	RJT065K15	CONNECTOR(15P)	
		EARTH TERMINAL(S)	
E1	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT1	RTP1I4G003	POWER TRANSFORMER	⚠
		TEST JUMPER(S)	
TJ701	RRJ8GET001H	TEST JUMPER	
TJ702	RRJ8GET001H	TEST JUMPER	

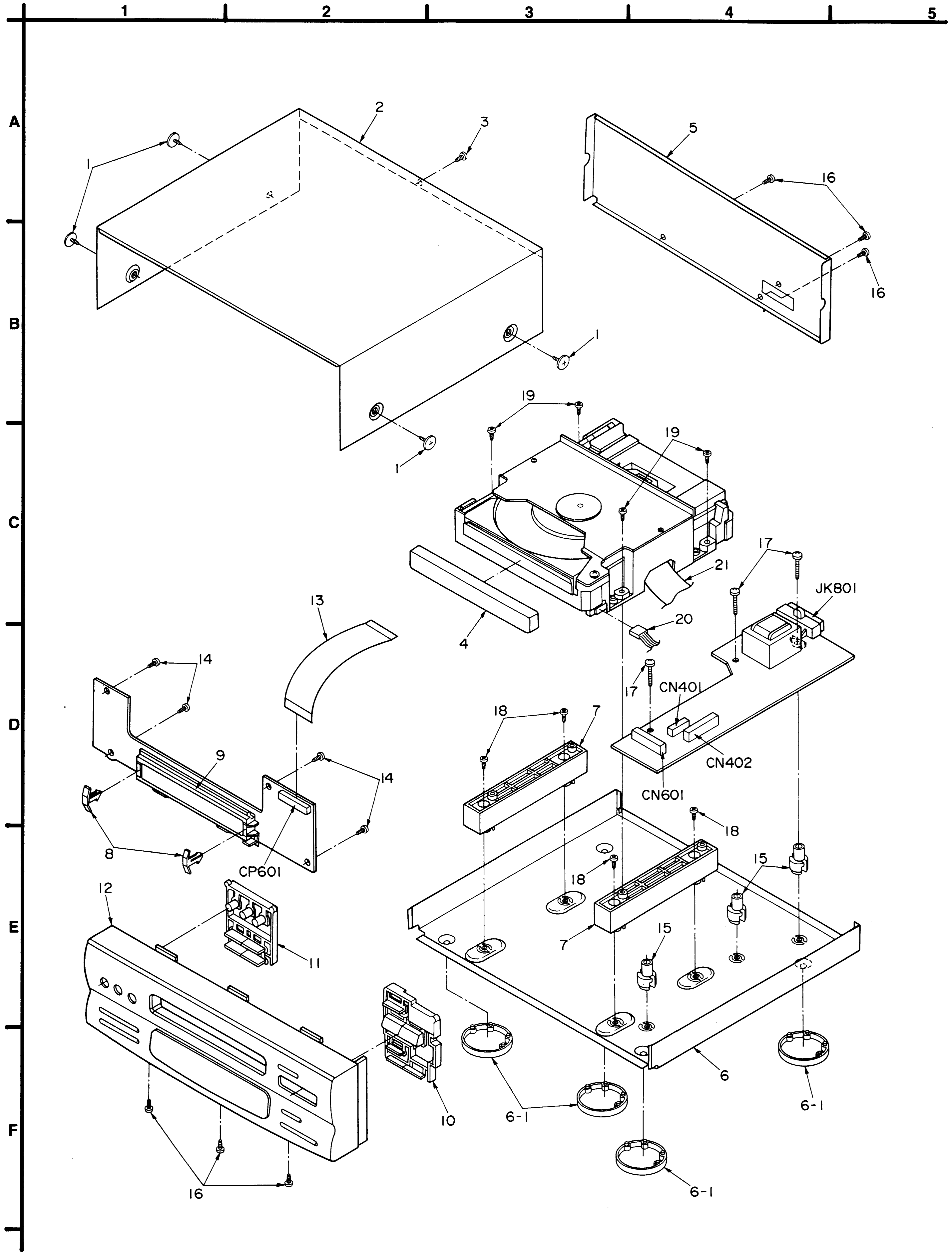
Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ562	1/4W 5.6K ⚠
R3	ERDS2TJ472	1/4W 4.7K
R5	ERQ16NKWR15E	1W 0.15
R7	ERDS2TJ562	1/4W 5.6K
R8	ERDS2TJ8R2T	1/4W 8.2 ⚠
R9	ERDS2TJ6R8	1/4W 6.8 ⚠
R11	ERDS2TJ1R2	1/4W 1.2
R12	ERDS1FVJ271T	1/2W 270 ⚠
R13	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R19	ERDS2TJ332	1/4W 3.3K
R20	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R21	ERDS2TJ103	1/4W 10K
R22	ERDS2TJ332	1/4W 3.3K
R23	ERDS2EJ121	1/4W 120
R24	ERDS2TJ471	1/4W 470
R26, 27	ERDS2TJ1R2	1/4W 1.2
R401-409	ERDS2TJ472	1/4W 4.7K
R410, 414	ERDS2TJ102	1/4W 1K
R411	ERDS2TJ472	1/4W 4.7K
R412, 413	ERDS2TJ103	1/4W 10K
R415	ERDS2TJ560T	1/4W 56
R416, 606	ERDS2TJ104	1/4W 100K
R419	ERDS2TJ472	1/4W 4.7K
R601-604	ERDS2TJ473	1/4W 47K
R605	ERDS2TJ102	1/4W 1K
R607	ERDS2TJ103	1/4W 10K
R608, 609	ERDS2TJ102	1/4W 1K
R610-617	ERDS2TJ221	1/4W 220
R631	ERDS2TJ101	1/4W 100
R632, 633	ERDS2TJ472	1/4W 4.7K
R634	ERDS2TJ8R2T	1/4W 8.2 ⚠
R635, 636	ERDS2EJ121	1/4W 120 ⚠
R637	ERDS2TJ470	1/4W 47
R701	ERJ6GEYJ100	1/10W 10
R702	ERJ6GEYJ471V	1/10W 470
R703	ERJ6GEYJ823	1/10W 82K
R704, 706	ERJ6GEYJ102A	1/10W 1K
R705	ERJ6GEYJ103V	1/10W 10K
R707	ERJ6GEYJ473V	1/10W 47K
R708	ERJ6GEYJ224V	1/10W 220K
R709	ERJ6GEYJ683V	1/10W 68K
R711	ERJ6GEYJ154V	1/10W 150K
R712	ERJ6GEYJ471V	1/10W 470
R714	ERJ6GEY0R00A	1/10W 0.00
R717-720	ERJ6GEYJ102A	1/10W 1K
R721	ERJ8GEYJ101V	1/8W 100
R722	ERJ6GEYJ473V	1/10W 47K
R723	ERJ6GEYJ182V	1/10W 1.8K
R724	ERJ6GEYJ333V	1/10W 33K
R725	ERJ6GEYJ472V	1/10W 4.7K
R726	ERJ6GEYJ473V	1/10W 47K
R727	ERJ6GEYJ103V	1/10W 10K
R728	ERJ6GEYJ392V	1/10W 3.9K
R730	ERJ6GEYJ331V	1/10W 330
R731	ERJ6GEYJ392V	1/10W 3.9K
R734-736	ERJ6GEYJ101V	1/10W 100
R738	ERJ6GEYJ223V	1/10W 22K
R739	ERJ6GEYJ681V	1/10W 680
R741-743	ERJ6GEYJ562V	1/10W 5.6K
R744	ERJ6GEYJ103V	1/10W 10K
R745	ERJ6GEYJ155V	1/10W 1.5M
R746	ERJ8GEYJ103V	1/8W 10K
R747	ERJ6GEYJ473V	1/10W 47K
R801, 802	ERDS2TJ104	1/4W 100K
R803-806	ERDS2TJ223	1/4W 22K
R807, 808	ERDS2TJ273	1/4W 27K
R809, 810	ERDS2TJ332	1/4W 3.3K
R811-814	ERDS2TJ104	1/4W 100K
R815, 816	ERDS2TJ102	1/4W 1K
		CHIP JUMPERS
RJ701-717	ERJ8GEY0R00A	1/10W 0
RJ721, 722	ERJ8GEY0R00A	1/10W 0
RJ724-726	ERJ8GEY0R00A	1/10W 0
		CAPACITORS
C1	ECA1CM222B	16V 2200U
C2	ECA1EM101B	25V 100U
C3, 4	ECBT1E103ZF	25V 0.01U ⚠
C5, 11	ECBT1H102KB5	50V 1000P
C6	ECA1HM101B	50V 100U
C7	ECKR2H102ZF5	500V 1000P ⚠
C8	ECEA0JKA221B	6.3V 220U
C10	ECEA1AKA221Q	10V 220U
C12	ECEA1AKA101B	10V 100U
C16	ECEA0JKA470B	6.3V 47U
C17	ECBT1H102KB5	50V 1000P
C18-20	ECEA0JKA470B	6.3V 47U
C21, 605	ECBT1H102KB5	50V 1000P
C401, 601	ECBT1H104ZF5	50V 0.1U
C402, 403	ECBT1H102KB5	50V 1000P
C404	ECBT1E103ZF	25V 0.01U
C405	ECBT1H102KB5	50V 1000P
C406, 606	ECBT1E103ZF	25V 0.01U
C602, 603	ECEA1HKS3R3B	50V 3.3U ⚠
C604	ECEA0JKS470	6.3V 47U
C608, 609	ECBT1E103ZF	25V 0.01U
C610	ECEA1HKSR22B	50V 0.22U
C611	ECEA1HKSR33B	50V 0.33U
C612	ECBT1E223ZF	25V 0.022U
C613	ECBT1E103ZF	25V 0.01U
C701	ECEA0JKA220	6.3V 22U
C702, 705	ECEA1HKA010I	50V 1U
C703	ECEA0JKA101I	6.3V 100U
C704	ECUZ1E104MBN	25V 0.1U
C706	ECUE1H101JCN	50V 100P
C708	ECUE1H472KBN	50V 4700P
C709	ECUE1C473KBN	16V 0.047U
C710	ECUE1H152KBN	50V 1500P
C711, 712	ECUZ1E104MBN	25V 0.1U
C713	ECUV1C104MBM	16V 0.1U
C714	ECEA0JKA101I	6.3V 100U
C715	ECEA0JKA470I	6.3V 47U
C716	ECUE1H561KBN	50V 560P
C717	ECUZ1E104MBN	25V 0.1U
C718, 719	ECUV1C224KBM	16V 0.22U
C721, 722	ECUE1H100DCN	50V 10P
C723	ECEA1AKA221I	10V 220U
C724	ECUV1C104MBM	16V 0.1U
C725, 726	ECUE1H102KBN	50V 1000P
C727, 728	ECEA1HKA010I	50V 1U
C730	ECUZ1E104MBN	25V 0.1U
C731, 732	ECA05SD151I	6.3V 150U
C733	ECUZ1E104MBN	25V 0.1U
C734	ECEA1AKA221I	10V 220U
C735-737	ECUZ1E104MBN	25V 0.1U
C738	ECUV1C154KBN	16V 0.15U
C742	ECUV1E273KBN	25V 0.027U
C743	ECUZ1E104MBN	25V 0.1U
C744	ECUE1E822KBN	25V 8200P
C745	ECUE1C473MBN	16V 0.047U
C746	ECUE1H050DCN	50V 5P
C747	ECUE1H222KBN	50V 2200P
C748	ECUV1H271KBM	50V 270P
C790	ECA1AKF820E	10V 82U
C801, 802	ECBT1H331KB5	50V 330P
C803, 804	ECBT1H121KB5	50V 120P
C805, 806	ECEA1EKA220B	25V 22U
C807, 808	ECBT1H101KB5	50V 100P

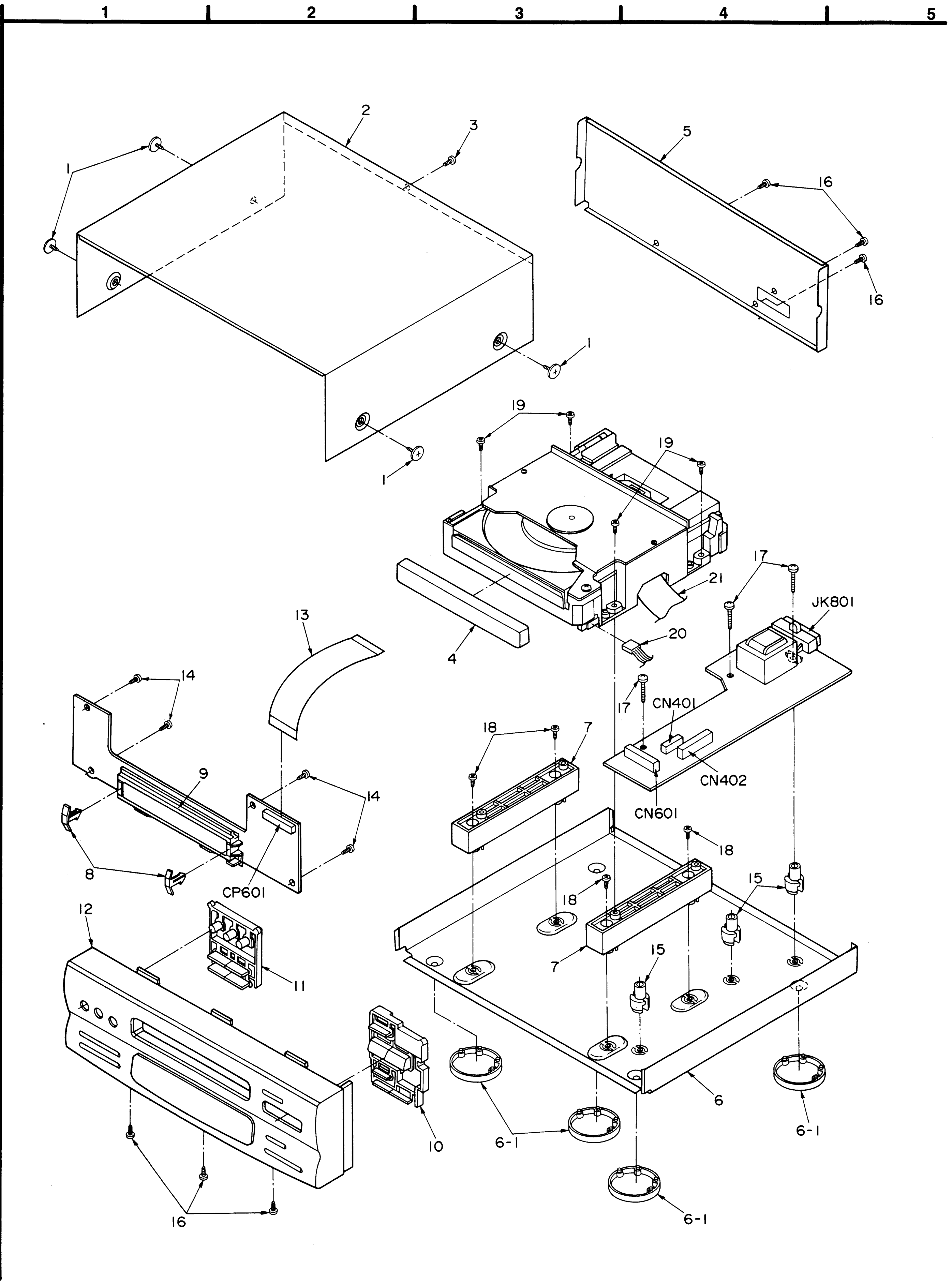
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0203-1K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	RGK0496-K	TRAY PANEL	
5	RGR0146A-E	REAR PANEL	
6	RFKJLCH550PP	BOTTOM BOARD ASS'Y	
6-1	RKA0055-N	FOOT	
7	RMR0343	HOLDER	
8	RMN0195	FL SPACER	
9	RMN0197	FL HOLDER	
10	RGU0801-K	BUTTON, PLAY etc.	
11	RGU0802-K	BUTTON, SEARCH etc.	
12	RFKGLCH750EK	FRONT PANEL ASS'Y	
13	RWJ5423130EE	FLEXIBLE CABLE (23P)	
14	XTBS26+8J	SCREW	
15	SHE185-2	P. C. B. SPACER	
16	XTBS3+8JFZ1	SCREW	
17	XTB3+16JFZ	SCREW	
18	XTB3+8FFZ	SCREW	
19	XTB3+8JFZ	SCREW	
20	REX0354	LEAD CABLE (6P)	
21	REZ0537	FLEXIBLE CABLE (23P)	

Ref. No.	Part No.	Part Name & Description	Remarks
		LOADING PARTS	
101	RFKJLPG440BK	CHASSIS ASS'Y	
101A	RDG0142	LOADING GEAR	
101B	RDG0193	LOADING GEAR (1)	
101C	RDP0041	PULLEY	
102	REM0019	MOTOR ASS'Y	
103	RMA0339	HOLDER	
104	RME0063	LOCK LEVER SPRING	
105	RME0087	SPRING	
106	RMG0158	BELT	
107	RML0177	CONVERSION LEVER	
108	RML0178-1	LOCK LEVER	
109	RMM0059-1	SLIDE PLATE (2)	
110	RMM0079	SLIDE PLATE (1)	
111	XTN26+6G	SCREW	
112	XYN2+F6FZ	SCREW	
113	RDB0036	GUIDE HOLDER	
114	RHD20010	SCREW	
115	RMU0046	GUIDE SHAFT	
116	RHM245ZA	MAGNET	
117	RMA0327-1	DISC CLAMPER	
118	RMR0334	MAGNET HOLDER	
119	RXQ0123	DISC HOLDER	
120	RFKNLPG440-K	DRIVE RACK ASS'Y	
121	RGQ0088-K	DISC TRAY	
122	RHD20009-1	SCREW	
123	XTB3+25GFZ	SCREW	
124	XTN26+6G	SCREW	
125	XTN3+8JFZ	SCREW	
126	RAE0111Z	TRAVERSE UNIT ASS'Y	
126A	SHGD112	RUBBER (A)	
126B	SHGD113-1	RUBBER (B)	
126C	RDV0023	BELT	
126D	SNSD38	SCREW	
127	RME0109	SPRING	
128	RMS0123-1	PIN (A)	
129	RMS0350	PIN (B)	
130	RMR0533-K	TRAVERSE CHASSIS	
131	XTV2+6G	SCREW	

■ CABINET PARTS LOCATION



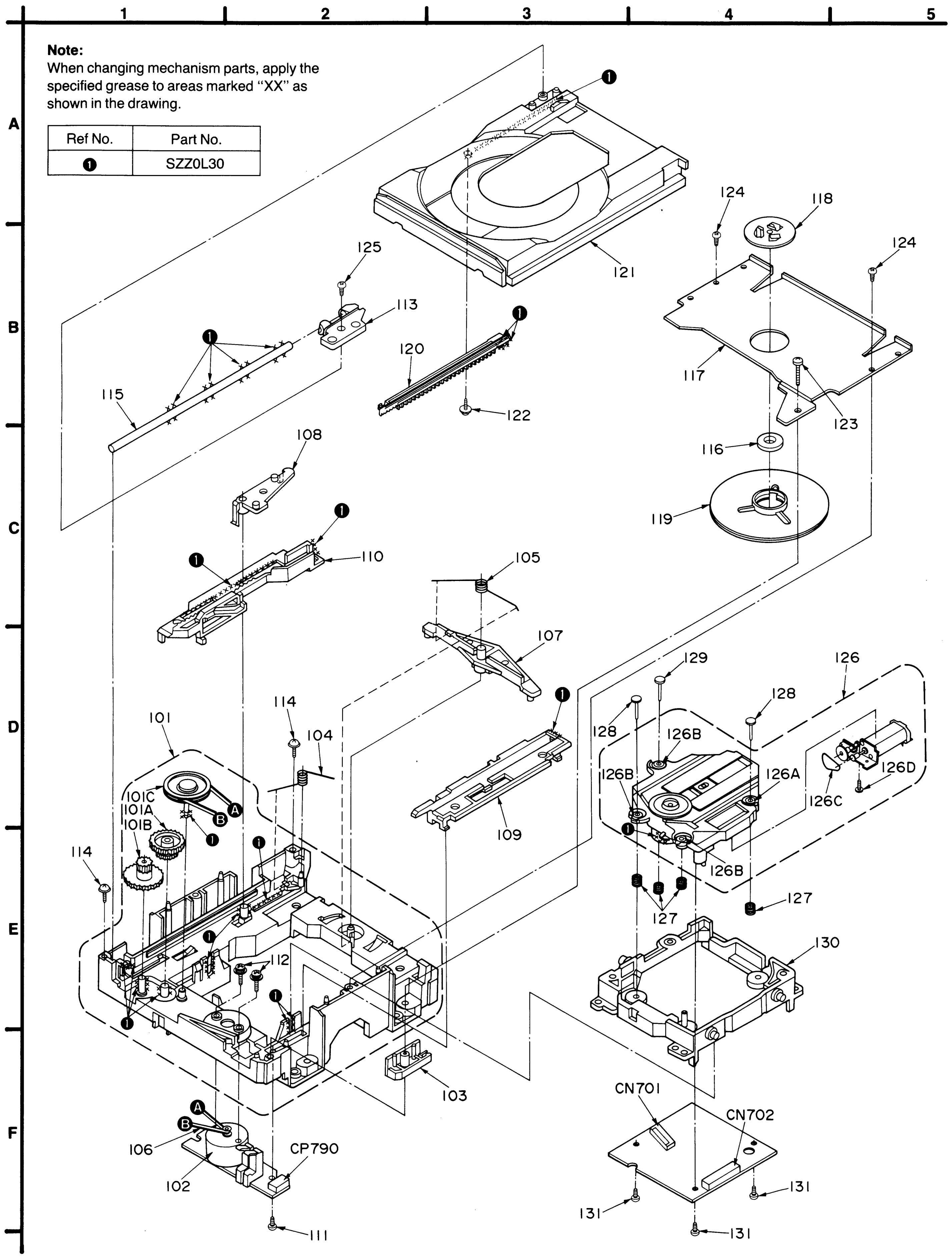
■ CABINET PARTS LOCATION


1
2
3
4
5
1
2
3
5
16
16
1
1
1
19
19
21
20
4
17
17
JK801
13
14
14
CN401
CN402
CN601
9
8
CP601
18
7
18
18
15
15
12
11
7
10
6
6-1
6-1
6-1
6-1
16

■ LOADING UNIT PARTS LOCATION

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref No.	Part No.
❶	SZZ0L30


1
2
3
4
5
A
B
C
D
E
F
❶
121
124
118
124
125
113
120
117
123
115
122
116
108
119
110
105
107
129
126
114
104
128
101
128
126B
126B
126A
126D
126C
101C
101A
101B
A
B
109
126B
114
127
127
130
112
103
CN701
CN702
106
102
CP790
111
131
131
131

Printed in Japan
F921212000FF/HS

Service Manual

Tuner Amplifier

Tuner Amplifier

SA-CH750

Colour

(K)	Black Type

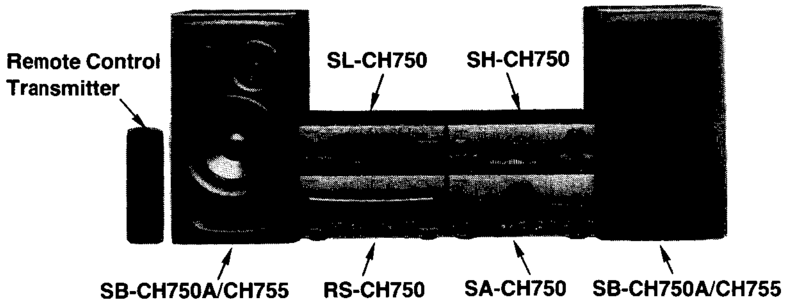
Areas

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	
(GC)	Asia, Latin America, Middle Near East and Africa	
(GN)	Oceania	

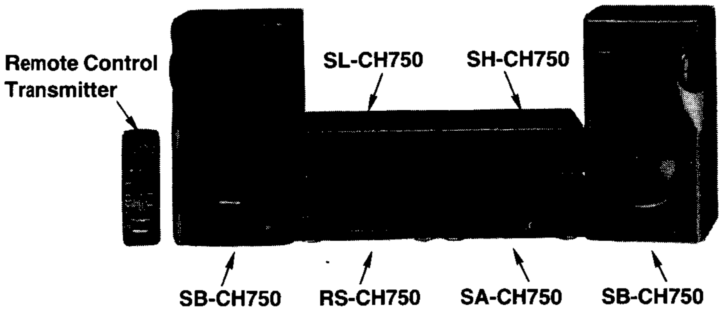
System: SC-CH750

> **Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.**

•For (E), (EB), (EG) areas


Remote Control Transmitter
SL-CH750
SH-CH750
SB-CH750A/CH755
RS-CH750
SA-CH750
SB-CH750A/CH755

•For (GC), (GN) areas


Remote Control Transmitter
SL-CH750
SH-CH750
SB-CH750
RS-CH750
SA-CH750
SB-CH750

SPECIFICATIONS

(DIN 45 500)

■ Main Amp. Section

Power output	
DIN 1 kHz THD 1%	
both channel driven	
For (GC), (GN) areas	
SFP, mode 1 kHz THD 1%	
MAIN	2×45 W (6Ω)
SURROUND	2×5 W (8Ω)
Total harmonic distortion	
Rated power at 1 kHz	1% (6Ω)
Half power at 1 kHz	0.09% (6Ω)
Load impedance	
MAIN	6–8Ω
SURROUND	8Ω
S/N (rated power)	84 dB
Frequency response	40 Hz–30 kHz (−3 dB)

■ FM Tuner Section

Frequency range	87.50 MHz–108.00 MHz (0.05 MHz steps)
Sensitivity	1.8 µV (IHF, usable)
S/N 26 dB	1.5 µV (75Ω)
S/N	
MONO	70 dB (75 dB, IHF)
Stereo separation at 1 kHz	35 dB
Antenna terminal(s)	75Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	
MW	
For (E), (EB), (EG), (GN) areas	522–1611 kHz (9 kHz steps)
	530–1620 kHz (10 kHz steps)
For (GC) area	531–1602 kHz (9 kHz steps)
	530–1600 kHz (10 kHz steps)
LW	
For (E), (EB), (EG), (GN), areas	144–288 kHz (9 kHz steps)
For (GC) area	153–279 kHz (9 kHz steps)
Sensitivity (S/N 20 dB)	
MW	500 µV/m
LW	50 µV

■ Timer Section

Clock	Quartz-lock type
Function	24-hour programmable; Play timer (1 time)
	Rec timer (1 time)
	Sleep (120 min. 1 min. intervals)
Setting	1 minute–23 hours 59 minutes (1 min. intervals)

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH750	SH-CH750	SA-CH750	SL-CH750	RS-CH750	*SB-CH750A .... (E), (EB), (EG) areas *SB-CH755 .... Switzerland only SB-CH750 .... (GC), (GN) areas

***Made in PAES**

Technics

■ GENERAL

Power consumption	175 W
Power supply	
For (E), (EG) areas	AC 50/60 Hz, 230 V
For (EB), (GN) areas	AC 50/60 Hz, 230 V–240 V
For (GC) area	AC 50/60 Hz, 110/127/220/240 V
Dimension (W×H×D)	270×119×334 mm
Weight	5.5 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

■ CONTENTS

Page
- BEFORE REPAIR 2
- PROTECTION CIRCUITRY 2
- ACCESSORIES 2, 3
- LOCATION OF CONTROLS 3, 4
- STACKING THE COMPONENTS 5
- CONNECTIONS .... 6~9
- SETTING THE TIME OF DAY 9
- DISASSEMBLY INSTRUCTIONS .... 10~13

Page
- SCHEMATIC DIAGRAM .... 14~22
- PRINTED CIRCUIT BOARD DIAGRAM................ 23~27
- WIRING CONNECTION DIAGRAM 28
- BLOCK DIAGRAM................................. 29~31
- FUNCTION OF IC TERMINALS 32
- REPLACEMENT PARTS LIST .... 33~38
- CABINET PARTS LOCATION 39
- PACKAGING 40

■ BEFORE REPAIR

(1) Turn off the power supply. Using a 10Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.

(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode is mode should be shown below with respect to supply voltage 230 V/240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	130~230 mA	110~210 mA

■ PROTECTION CIRCUITRY

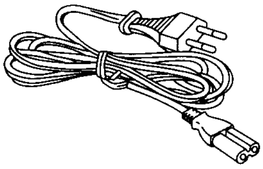
The protection circuitry may have operated if either of the following conditions is noticed:
•No sound is heard when the power is switched ON.
•Sound stops during a performance.
The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

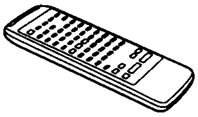
■ ACCESSORIES

Check the packing carton for these accessories.



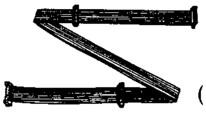
(RJA0019-2K) for (E), (EG), (GC) areas
(VJA0733) for (EB) area
(SJA173) for (GN) area

- AC power supply cord .... 1 pc.



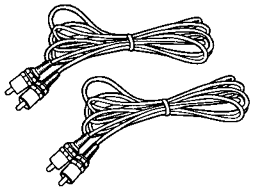
(RAK-SC709WH)

- Remote control transmitter .... 1 pc.

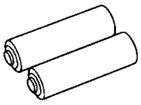


(REX0462)

- Flat cable .... 1 pc.

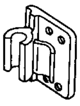


- Surround speaker cords.............................. 2 pcs.
  (RJL1P001B25) for (GC), (GN) areas



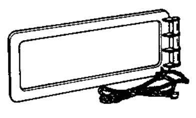
Note: These are available on sale route.

- Remote control batteries
  UM-4, AAA, R03 .... 2 pcs.

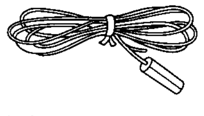


(SMA233-1M)

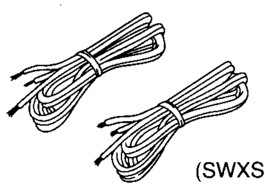
- Antenna holder .... 1 pc.


(SPB1163T)

- LW/MW loop antenna .... 1 pc.


(RSA0007) for (E), (EB), (EG) areas
(RSA0006) for (GC), (GN) areas

- FM indoor antenna .... 1 pc.

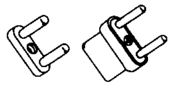

(SWXS257M)

- Speaker cords .... 2 pcs.

(XTN3+10AFZ)

- Mounting screws .... 2 pcs.

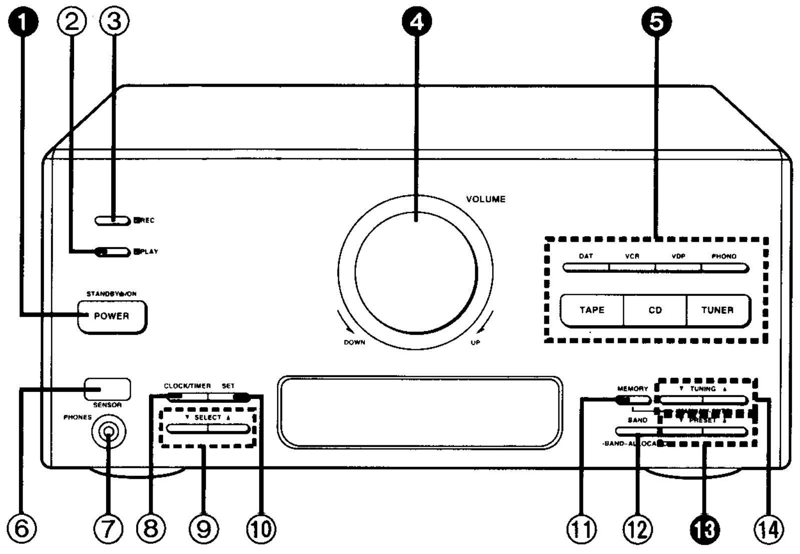
- Attachment plug .... 1 pc.
(SJP9009) for (EB) area


(SJP5213-2) for (GC) area

- Power plug adaptor .... 1 pc.

Note:
The configurations of AC power supply cord and FM indoor antenna differ according to area.

■ LOCATION OF CONTROLS



❶ Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/ON)
This switch switches ON and OFF the secondary circuit power only. The unit is in the "standby" condition when this switch is set to the STANDBY ⏻ position. Regardless of the switch setting, the primary circuit is always "live" as long as the power cord is connected to an electrical outlet.

② Timer play button (⏲ PLAY)
Press to confirm, exit or reset the play timer.

③ Timer recording button (⏲ REC)
Press to confirm, exit or reset the record timer.

❹ Volume level control (VOLUME)
Turn to adjust the volume level.
Note that -- dB is the lowest volume setting and 0 dB is the highest.

❺ Input select buttons (TAPE, CD, TUNER, DAT, VCR, VDP, PHONO)
Press to select the sound source.

⑥ Remote control signal sensor (SENSOR)
Receives the signals from the remote control.

⑦ Headphones jack (PHONES) (∅3.5, 32Ω)
Plug headphones cord into this jack.

⑧ Clock/timer button (CLOCK/TIMER)
Press to select the clock set mode or desired timer mode.

⑨ Timer select buttons (▼ SELECT ▲)
Use when setting the current time and timer.

⑩ Setting button (SET)
Press to set the present time in the clock mode, or set the various selection in the timer mode.

⑪ Preset memory button (MEMORY, -MANUAL, -AUTO)
Press to put a broadcast station into the memory.

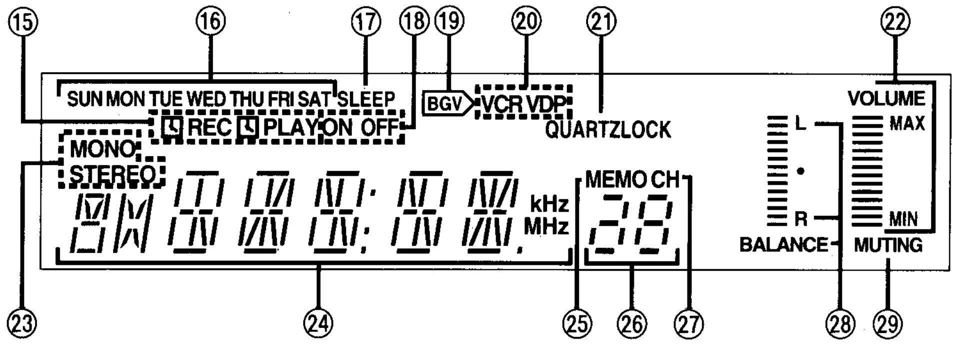
⑫ Band select/allocation change button (BAND, -BAND -ALLOCATION)
Press to select the MW, LW or FM radio band.
Press and hold to change the MW frequency step.

⓭ Preset tuning buttons (▼ PRESET ▲)
Use to select channel number for a broadcast station which has been stored in the tuner's memory.

⑭ Tuning buttons (▼ TUNING ▲)
Use to tune in a desired broadcast station.

The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.

•Display section



⑮ Timer mode indicators (⏲ REC, ⏲ PLAY)
⏲ REC: Lights when you have set the record timer mode.
⏲ PLAY: Lights when you have set the play timer mode.

⑯ Day indicators (SUN–SAT)
Shows the day of the week or the day the timer has been set for.

⑰ Sleep timer indicator (SLEEP)
Lights when you have set the sleep timer mode.

⑱ Timer on/off indicator (ON, OFF)
Lights together with the setting time to show the timer ON time and OFF time.

⑲ BGV (background visual) indicator (BGV>)
Lights when listening to audio sound source.

⑳ Visual source indicators (VCR, VDP)
Lights to show it is possible to enjoy BGV (Back Ground Visual) if you connect video deck or video disc player to this system.

㉑ Quartz lock indicator (QUARTZLOCK)
Lights when you precisely tune in a broadcast station.

㉒ Volume level display (VOLUME, MAX, MIN)
Shows the volume level.

㉓ FM STEREO/MONO indicator (MONO, STEREO)
"STEREO" lights when an FM stereo broadcast is being received. If you press FM mode button on the remote control to select monaural mode, "MONO" lights.

㉔ Alpha-numeric display
Shows the selected source, present time, and the contents of the timer setting, received frequencies, volume level.

㉕ Memory indicator (MEMO)
Lights when the preset memory button is pressed.

㉖ Preset channel display
Shows the preset channel you select.

㉗ Channel indicator (CH)
Lights when the unit is in the preset tuning mode.

㉘ Balance display (L, R, BALANCE)
Shows the left-right volume balance.

㉙ Muting indicator (MUTING)
Lights when you activate the muting mode.

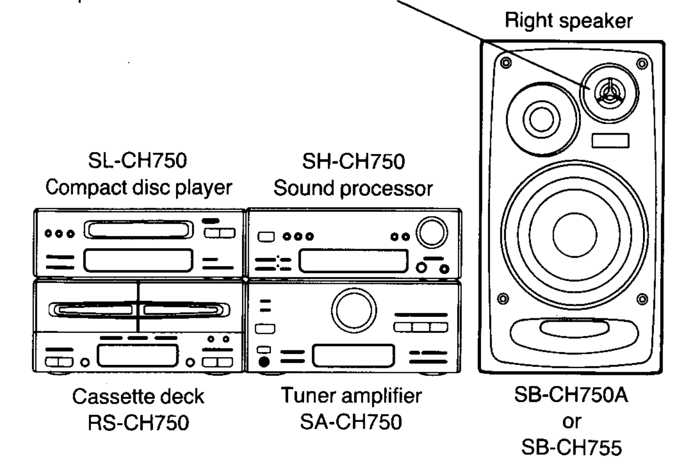
■ STACKING THE COMPONENTS

Install the various components as shown below.

■ Horizontal stacking

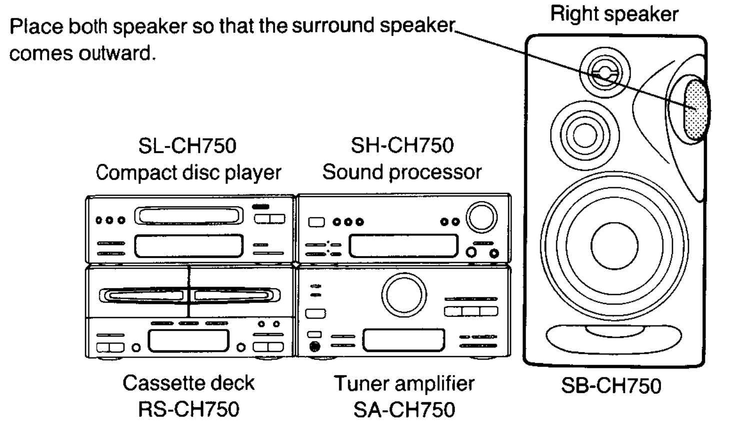
For (E), (EB), (EG) areas

Place both speakers so that the tweeter comes outward.

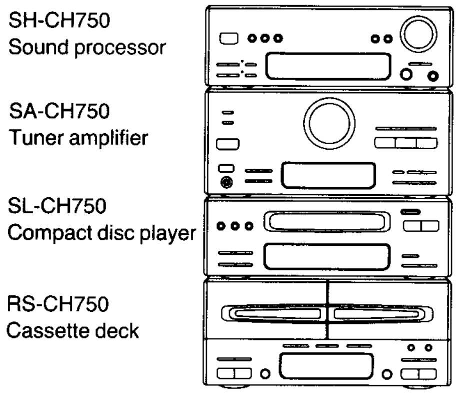

Right speaker
SL-CH750
Compact disc player
SH-CH750
Sound processor
Cassette deck
RS-CH750
Tuner amplifier
SA-CH750
SB-CH750A
or
SB-CH755

For (GC), (GN) areas

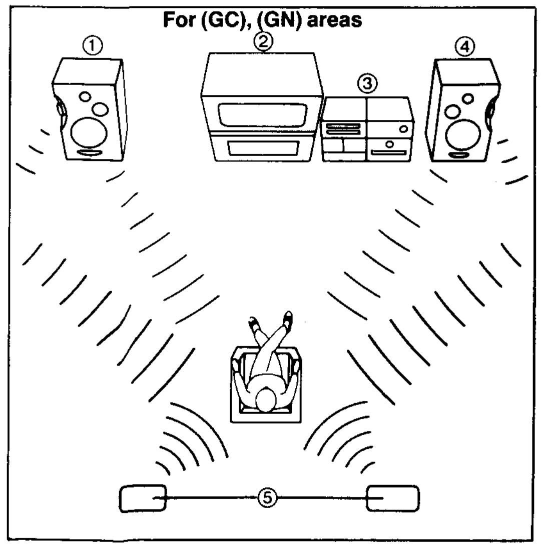
Place both speaker so that the surround speaker comes outward.


Right speaker
SL-CH750
Compact disc player
SH-CH750
Sound processor
Cassette deck
RS-CH750
Tuner amplifier
SA-CH750
SB-CH750

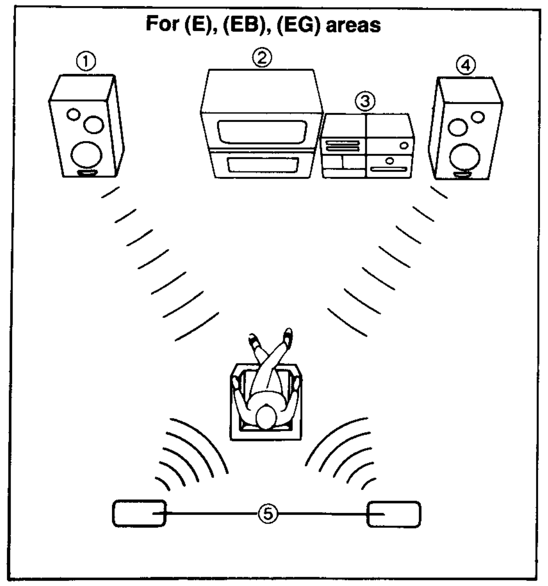
■ Vertical stacking


SH-CH750
Sound processor
SA-CH750
Tuner amplifier
SL-CH750
Compact disc player
RS-CH750
Cassette deck

■ System layout


For (GC), (GN) areas
①
②
③
④
⑤

- ① Left speaker
- ② Television set (not included)
- ③ This system
- ④ Right speaker
- ⑤ Surround speaker (not included)


For (E), (EB), (EG) areas
①
②
③
④
⑤

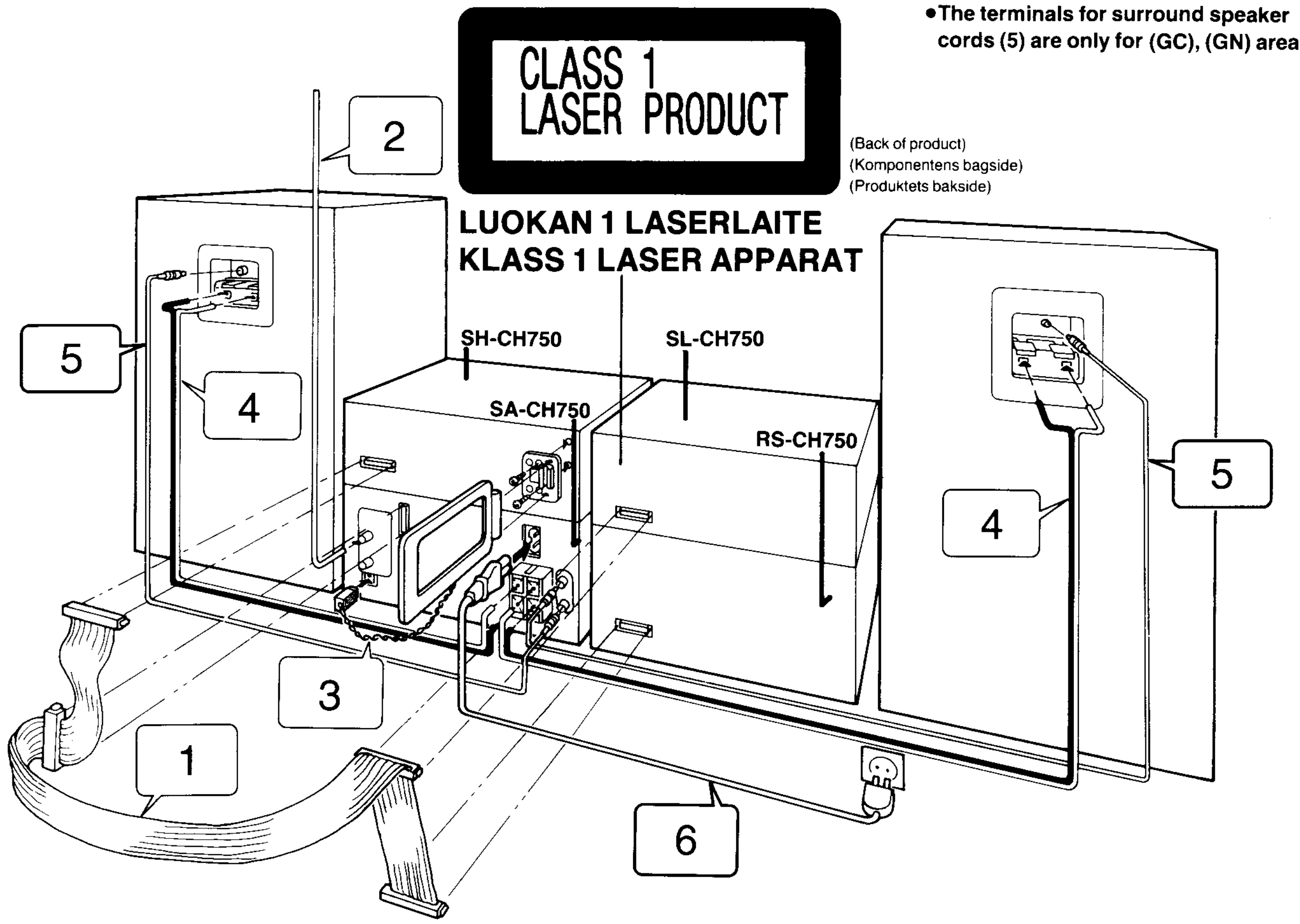
To produce a better stereo sound, install both speakers away from the system.

This speaker system has built-in surround speaker, so you can easily enjoy the surround sound.

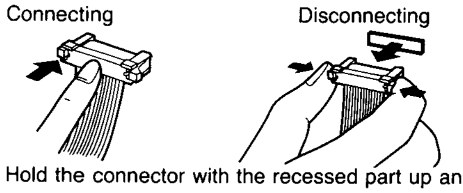
Surround sound effect differs according to where you install the surround speakers. Install them as you like.

■ CONNECTIONS

•The terminals for surround speaker cords (5) are only for (GC), (GN) areas


CLASS 1
LASER PRODUCT
(Back of product)
(Komponentens bagside)
(Produktets bakside)
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
SH-CH750
SL-CH750
SA-CH750
RS-CH750
1
2
3
4
4
5
5
6

1 Connect the flat cable.

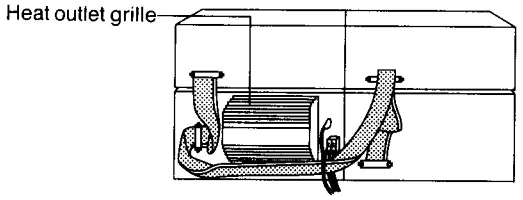

Connecting
Disconnecting

Hold the connector with the recessed part up and press in at the center until you hear a click.

First connect the blue-colored connector to the terminal of the sound processor (A), then connect the rest in the order B, C, D.

Route the cable horizontally (underneath the heat outlet grille) so that the side with the white-color lead is positioned at the front.

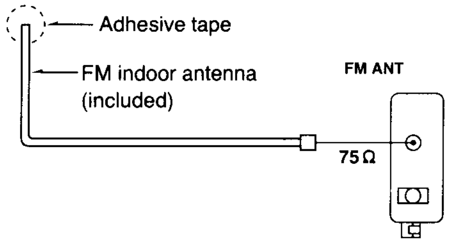
After connection, fold and press the cable as flat to the back of the unit as possible.


Heat outlet grille

Do not try connecting or disconnecting the flat cable while the power is switched to ON.

2 Connect the FM indoor antenna.

Install the antenna on a wall at a height and in a direction which result in the best reception.


Adhesive tape
FM indoor antenna
(included)
FM ANT
75Ω

The tip of the internal antenna wire should not come into contact with any metal objects.

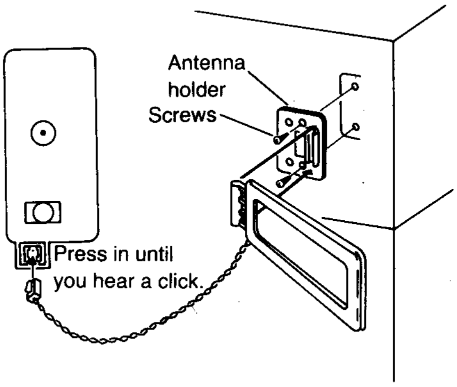
When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included). Disconnect the FM indoor antenna if you install an FM outdoor antenna.

3 Connect the LW/MW loop antenna.

1. Attach the antenna holder with screws (included) to the rear panel of the sound processor.
2. Clamp the antenna to the antenna holder and connect the antenna terminal to the rear panel of the tuner amplifier.
3. Position the loop for the best reception.

You may attach the LW/MW antenna holder to a rack or other structure.

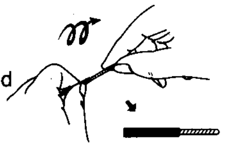
Notes:
- To minimize noise pickup, keep the LW/MW loop antenna away from the speaker cable, power cord, and metal surfaces.
- For better reception, keep the LW/MW loop antenna cord along the heat outlet grille, and away from the flat cable.


Antenna holder
Screws
Press in until you hear a click.

4 Connect the speaker cables.

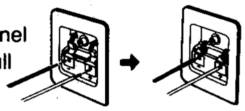
Connection of speaker cables

1. Strip off the outer covering, and twist the center conductor.

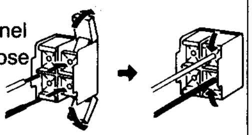


Make sure the bare ends of the wires are not unraveled. (If they are, twist them tight again.)

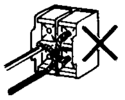
2. Insert the wire to the rear panel of the speakers, and then pull down the lever.



3. Insert the wire to the rear panel of the tuner amplifier, and close the lever.



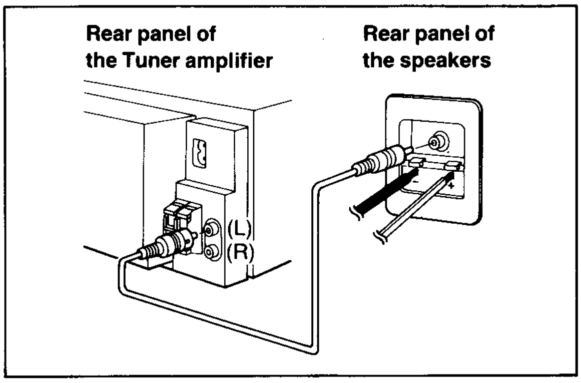
Notes:
- To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (−) terminals.



Note:
- Be sure to connect speaker cables before connecting the AC power supply cord.

5 Connect the surround speaker cord.

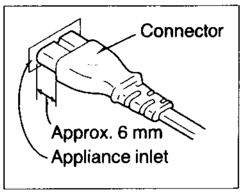
For (GC), (GN) areas


Rear panel of the Tuner amplifier
Rear panel of the speakers
(L)
(R)
+
−

6 Connect the AC power supply cord after you have connected all other cables and cords.

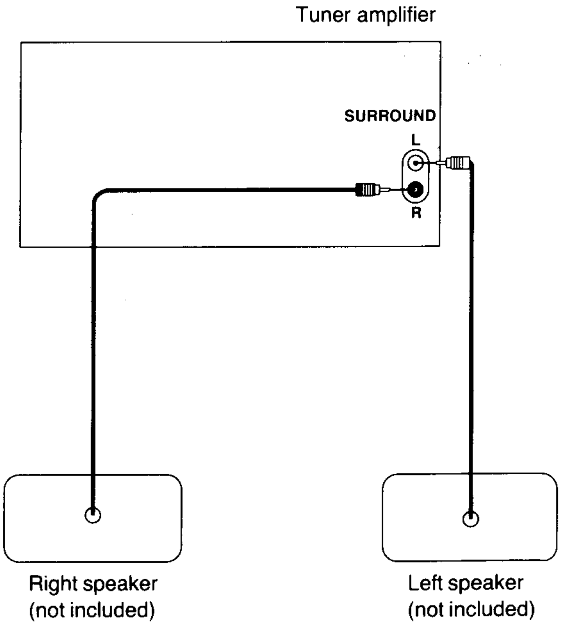
Insertion of Connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.


Connector
Approx. 6 mm
Appliance inlet

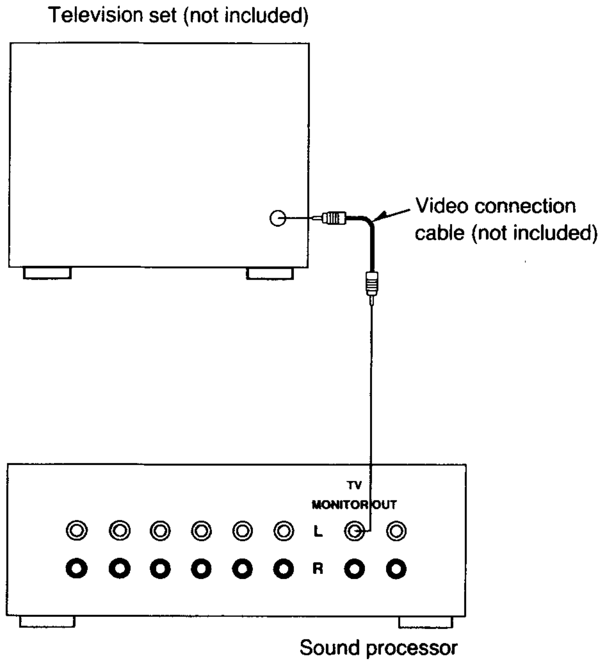
■ External unit connection

Surround speaker

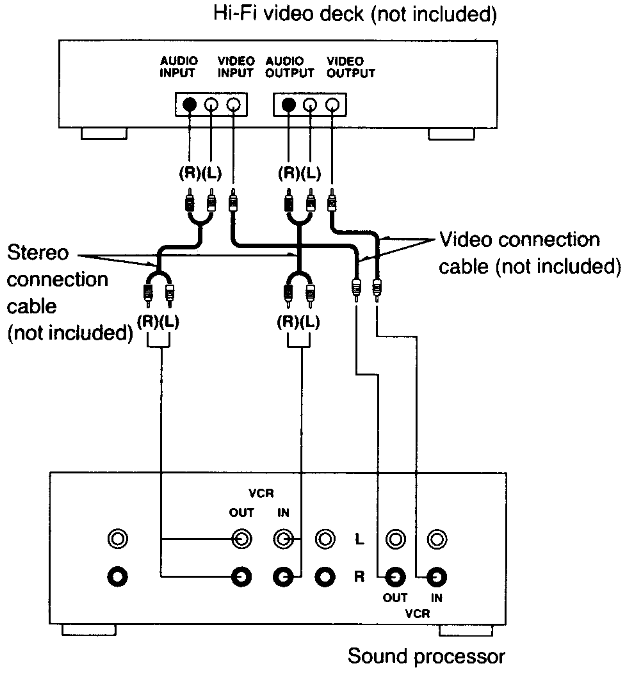

Tuner amplifier
SURROUND
L
R
Right speaker (not included)
Left speaker (not included)

Notes:
Install each speaker left and right at the back of the listening space.
Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.

Television

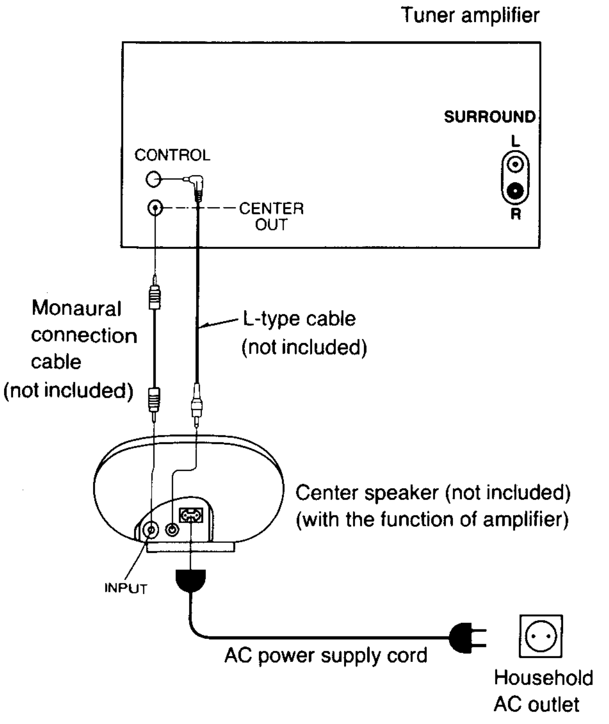

Television set (not included)
Video connection cable (not included)
TV
MONITOR OUT
L
R
Sound processor

Video deck


Hi-Fi video deck (not included)
AUDIO INPUT
VIDEO INPUT
AUDIO OUTPUT
VIDEO OUTPUT
(R)(L)
(R)(L)
Stereo connection cable (not included)
Video connection cable (not included)
(R)(L)
(R)(L)
VCR
OUT
IN
L
R
OUT
IN
VCR
Sound processor

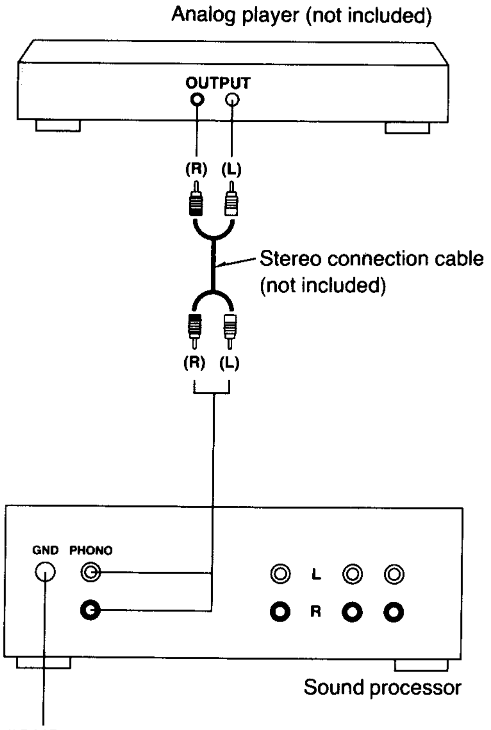
When you use a monaural video deck, connect it with monaural video connection cable.

Center speaker for (GC), (GN) areas


Tuner amplifier
SURROUND
L
R
CONTROL
CENTER OUT
Monaural connection cable (not included)
L-type cable (not included)
Center speaker (not included) (with the function of amplifier)
INPUT
AC power supply cord
Household AC outlet

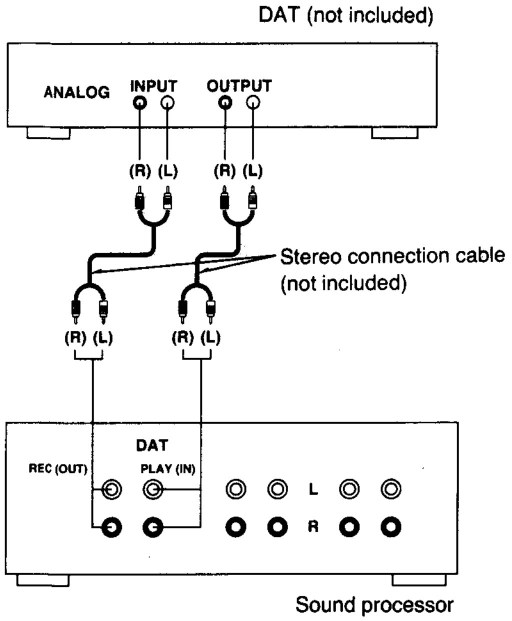
Note:
When you use a center speaker which has not a built-in amplifier, connect it to an another amplifier.

Analog player

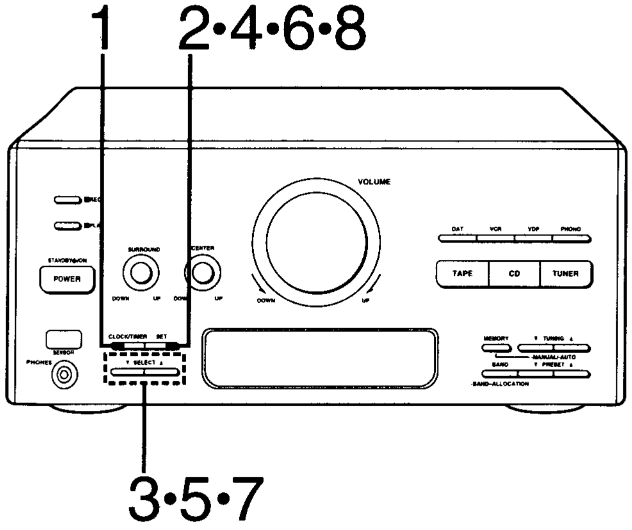

Analog player (not included)
OUTPUT
(R)
(L)
Stereo connection cable (not included)
(R)
(L)
GND
PHONO
L
R
Sound processor

“GND” terminal
This terminal is for a ground wire use.

DAT (digital audio tape deck)


DAT (not included)
ANALOG
INPUT
OUTPUT
(R) (L)
(R) (L)
Stereo connection cable
(not included)
(R) (L)
(R) (L)
DAT
REC (OUT)
PLAY (IN)
L
R
Sound processor

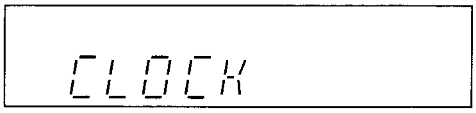
■ SETTING THE TIME OF DAY


1
2•4•6•8
3•5•7
VOLUME
POWER
SURROUND
CENTER
DAT
VCR
VDP
PHONO
TAPE
CD
TUNER
CLOCK/TIMER
SET
SELECT
MEMORY
TUNING
MANUAL/AUTO
BAND
PRESET
BAND-ALLOCATION
PHONES
SENSOR

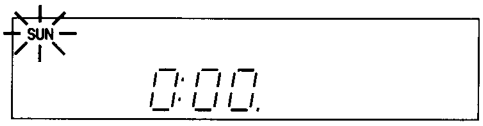
These instructions explain how to set the time for 16:25 (4:25 p.m.) on Wednesday.

Switch on the power.

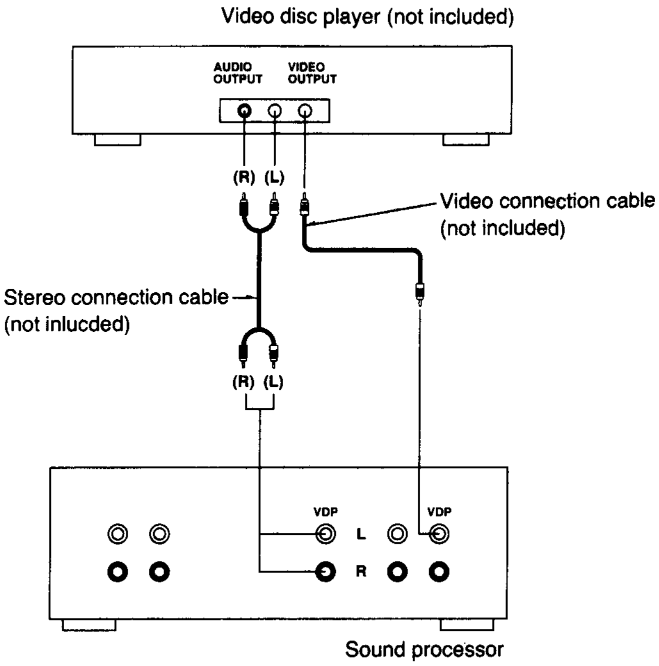
1 **Press CLOCK/TIMER to select "CLOCK".**
The display will show CLOCK.
The display will return to what was previously indicated if you allow 7 or more seconds to elapse before you accomplish the next operation.



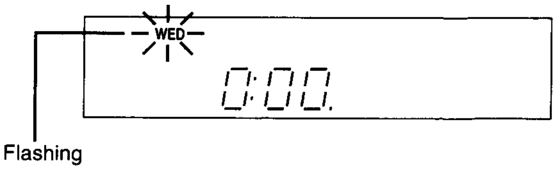
2 **Press SET.**
The day indicator will start to flash.



Video disc player

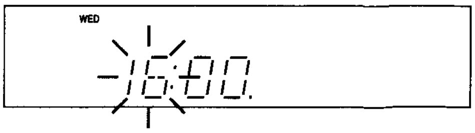

Video disc player (not included)
AUDIO OUTPUT
VIDEO OUTPUT
(R) (L)
Video connection cable
(not included)
Stereo connection cable
(not inlucded)
(R) (L)
VDP
L
R
VDP
Sound processor

3 **Press one of the SELECT buttons to select "WED".**


WED
0:00.
Flashing

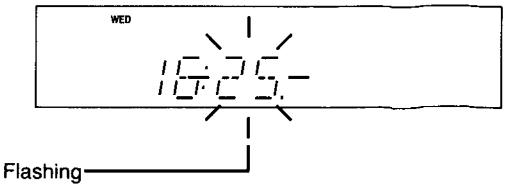
4 **Press SET.**

5 **Press one of the SELECT buttons to select "16".**
Going from 23:59 to 00:00 on the hour display will not change the day display.



6 **Press SET.**

7 **Press one of the SELECT buttons to select "25".**
Going from 59 to 00 on the minute display will not change the hour display.


WED
16:25.
Flashing

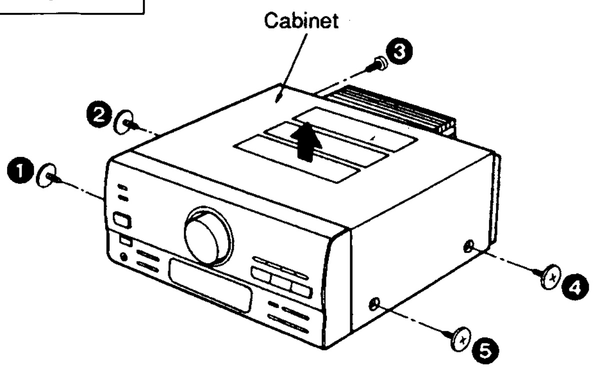
8 **Press SET to finish setting the time.**
After about 2 seconds, the display will return to what it were before entering the clock setting mode.

To display the clock again, press CLOCK/TIMER. The display will show "CLOCK", and then clock will appear for 5 seconds.
"E" appears on the display if the power cord has been once disconnected or there has been a power failure. If this happens, reset the time.

■ DISASSEMBLY INSTRUCTIONS

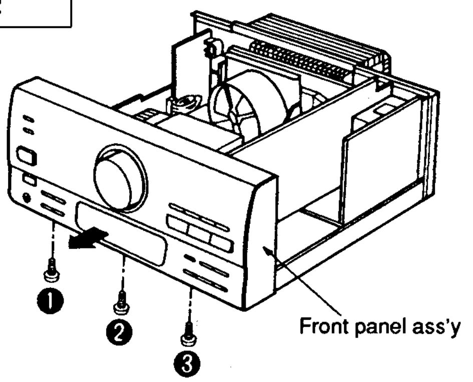
"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the Cabinet
Procedure 1	


Cabinet
❶
❷
❸
❹
❺

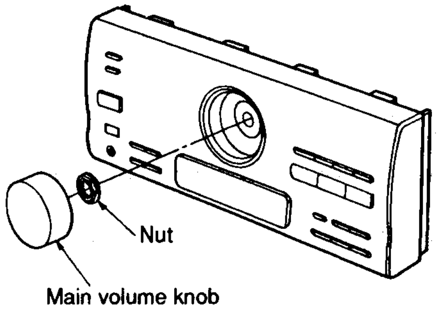
1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2	Removal of the Front Panel Ass'y
Procedure 1→2	

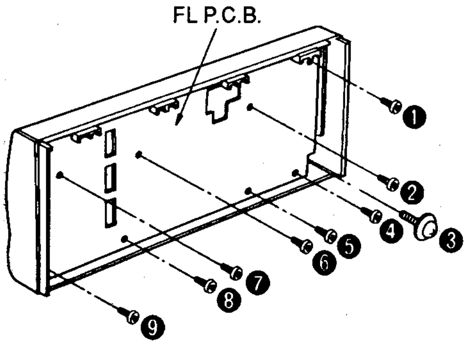

❶
❷
❸
Front panel ass'y

1. Remove the 3 screws (❶~❸).
2. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3	Removal of the FL P.C.B.
Procedure 1→2→3	

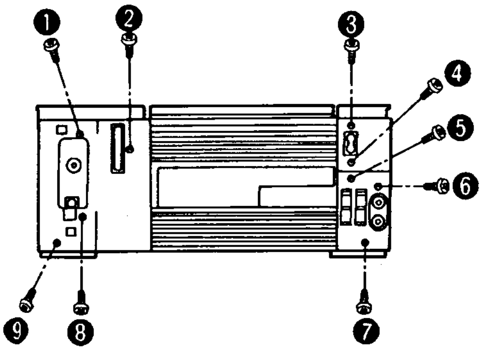

Nut
Main volume knob

1. Pull out the main volume knob.
2. Remove the nut.

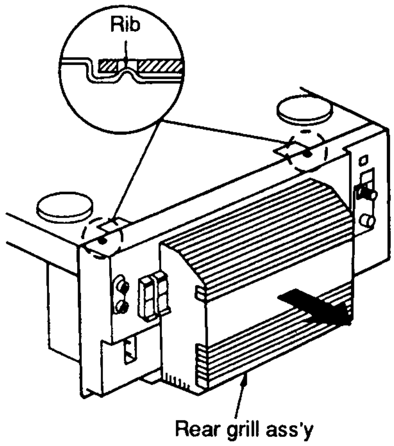

FL P.C.B.
❶
❷
❸
❹
❺
❻
❼
❽
❾

3. Remove the 9 screws (❶~❾).

Ref. No. 4	Removal of the Rear Grill Ass'y
Procedure 1→4	



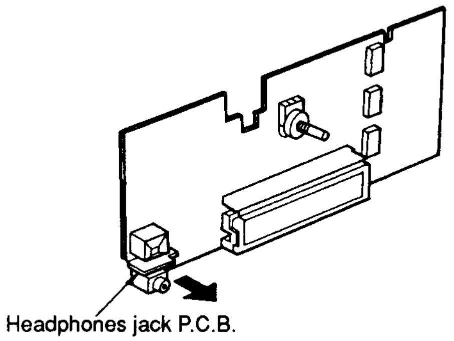
1. Remove the 9 screws (❶~❾).


Rib
Rear grill ass'y

2. Remove the 2 ribs.
3. Remove the rear grill ass'y in the direction of arrow.

Ref. No. 5 — Removal of the Headphones Jack P.C.B.

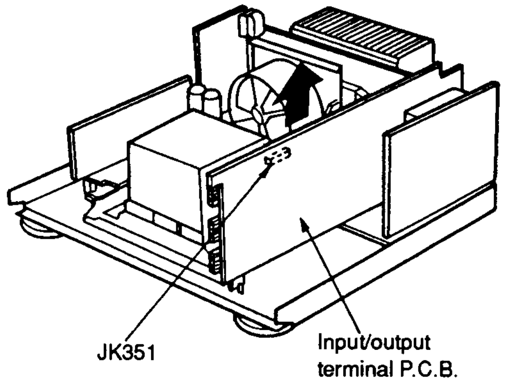
Procedure
1→2→3→5


Headphones jack P.C.B.

- Remove the headphones jack P.C.B. in the direction of arrow.

Ref. No. 6 — Removal of the Input/outout Terminal P.C.B.

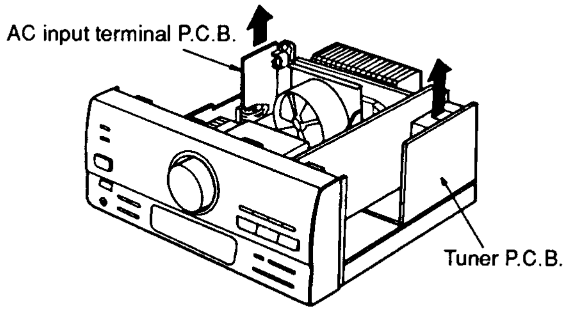
Procedure
1→2→4→6


JK351
Input/output terminal P.C.B.

1. Remove the connector (JK351).
2. Remove the input/output terminal P.C.B. in the direction of arrow.

Ref. No. 7 — Removal of the AC Input Terminal P.C.B. and Tuner P.C.B.

Procedure
1→4→7


AC input terminal P.C.B.
Tuner P.C.B.

■ Removal of the AC Input Terminal P.C.B.

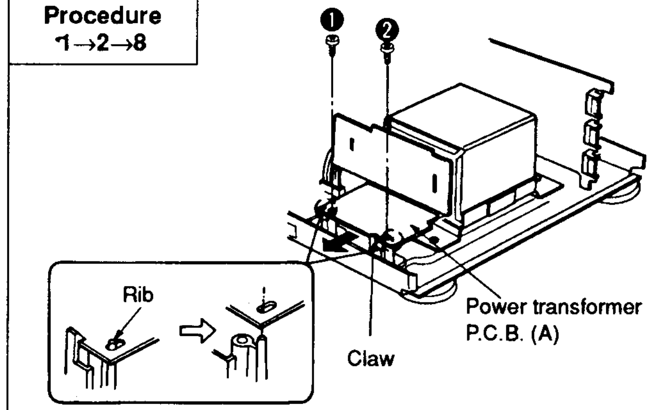
- Remove the AC input terminal P.C.B. in the direction of arrow.

■ Removal of the tuner P.C.B.

- Remove the tuner P.C.B. in the direction of arrow.

Ref. No. 8 — Removal of the Power Transformer P.C.B. (A)

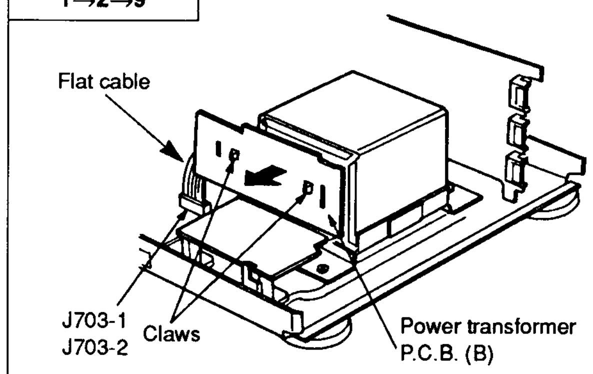
Procedure
1→2→8


❶
❷
Rib
Claw
Power transformer P.C.B. (A)

1. Remove the 2 screws (❶, ❷).
2. Release the claw.
3. Remove the 2 ribs.
4. Remove the power transformer P.C.B. (A) in the direction of arrow.

Ref. No. 9 — Removal of the Power Transformer P.C.B. (B)

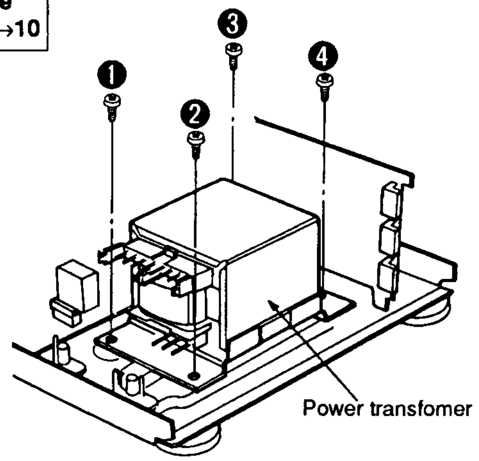
Procedure
1→2→9


Flat cable
J703-1
J703-2
Claws
Power transformer P.C.B. (B)

1. Remove the flat cable (J703-1, J703-2).
2. Release the 2 claws.
3. Remove the power transformer P.C.B. (B) in the direction of arrow.

Ref. No. 10 — Removal of the Power Transformer

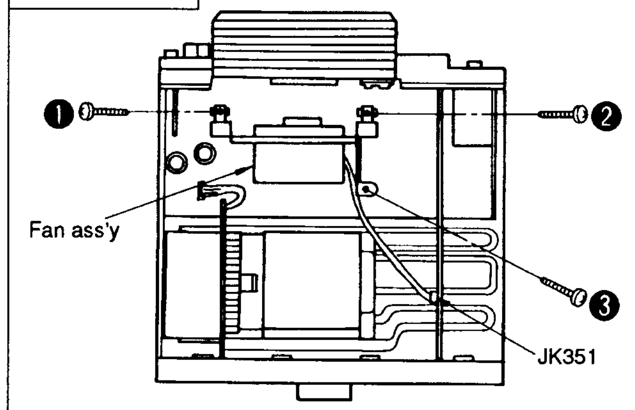
Procedure
1→2→8→9→10


❶
❷
❸
❹
Power transfomer

- Remove the 4 screws (❶~❹).

Ref. No. 11 — Removal of the Fan Ass'y

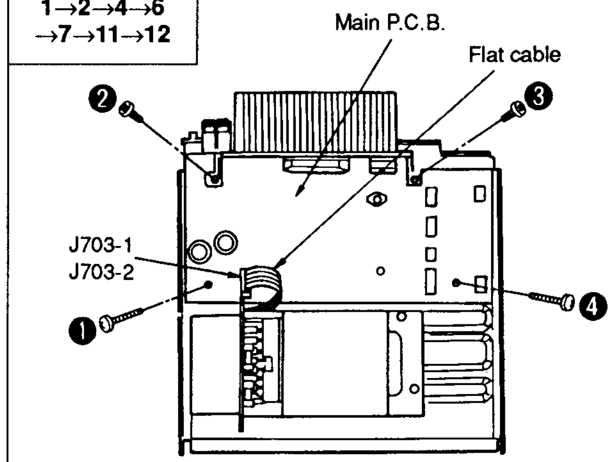
Procedure
1→11


❶
❷
❸
Fan ass'y
JK351

1. Remove the connector (JK351).
2. Remove the 3 screws (❶~❸).

Ref. No. 12 — Removal of the main P.C.B.

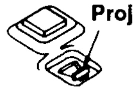
Procedure
1→2→4→6
→7→11→12

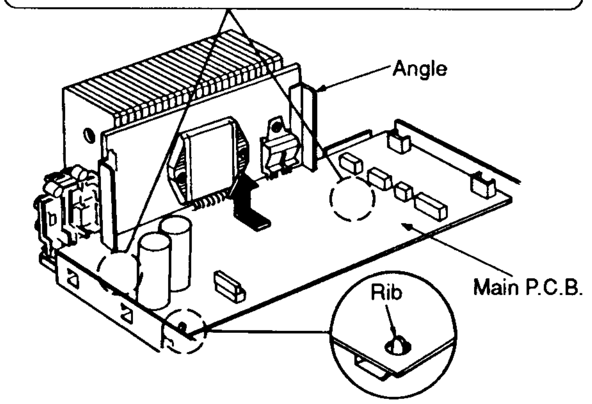

Main P.C.B.
Flat cable
❷
❸
J703-1
J703-2
❶
❹

1. Remove the 4 screws (❶~❹).
2. Remove the flat cable (J703-1, J703-2).

■ NOTE **[Bottom view]**

- Insert the projection on the angle into the hole of the bottom board ass'y and then install the Main P.C.B.


Projection

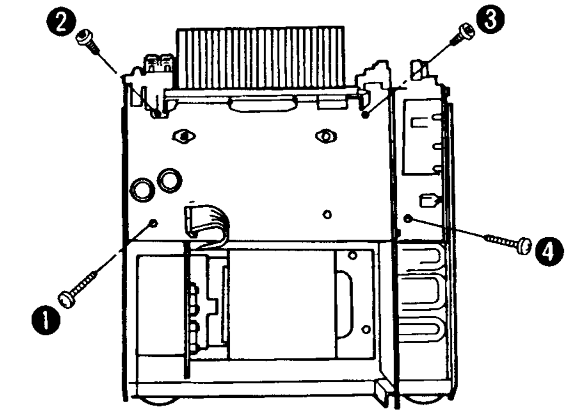

Angle
Rib
Main P.C.B.

3. Remove the rib.
4. Remove the main P.C.B. in the direction of arrow.

Ref. No. 13 — How to check the Main P.C.B.

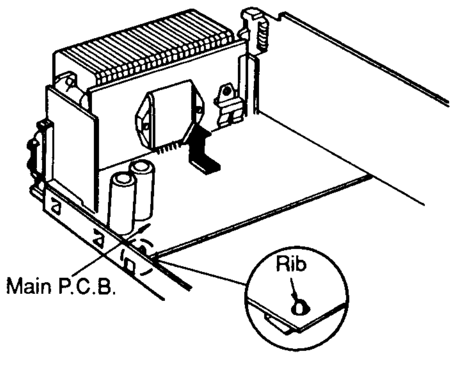
Procedure
1→2→4→11
→13

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as shown below.



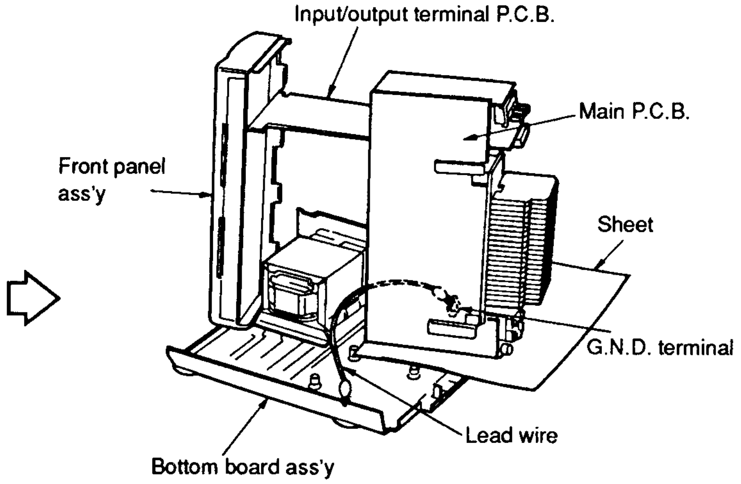
1. Remove the 4 screws (❶~❹).

⇩


Main P.C.B.
Rib

2. Remove the rib.
3. Remove the main P.C.B. in the direction of arrow.

⇨


Input/output terminal P.C.B.
Main P.C.B.
Front panel ass'y
Sheet
G.N.D. terminal
Lead wire
Bottom board ass'y

4. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.
5. Reinstall the front panel ass'y to the input/output terminal P.C.B.

Terminal

on of

sformer

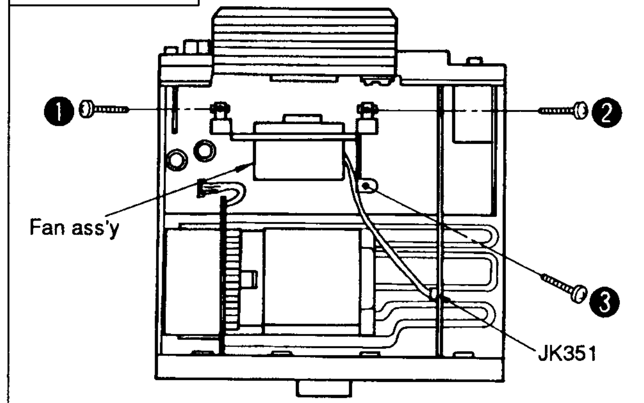
sformer

ion of

sformer

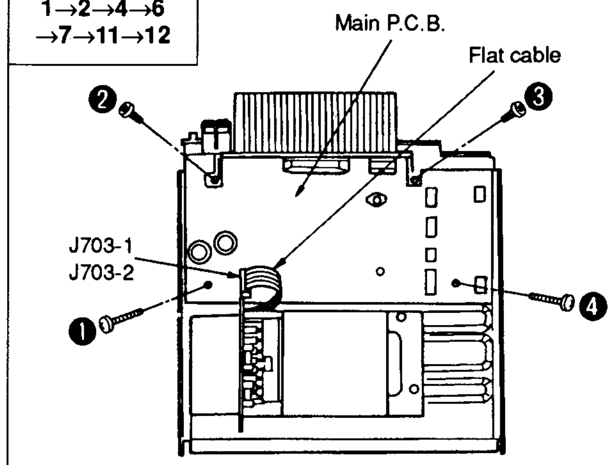
omer

Ref. No. 11	Removal of the Fan Ass'y
Procedure 1→11	


❶
❷
Fan ass'y
❸
JK351

1. Remove the connector (JK351).
2. Remove the 3 screws (❶~❸).

Ref. No. 12	Removal of the main P.C.B.
Procedure 1→2→4→6 →7→11→12	

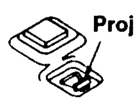

Main P.C.B.
Flat cable
❷
❸
J703-1
J703-2
❶
❹

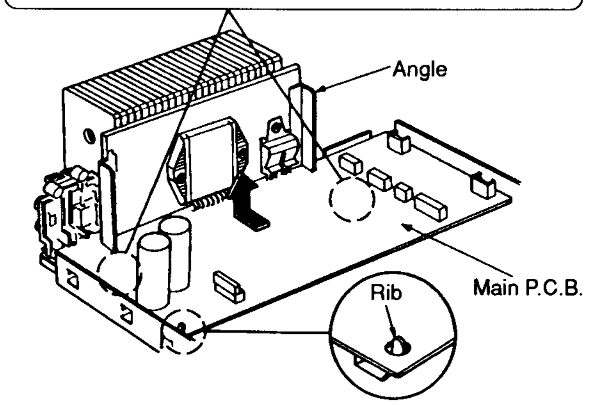
1. Remove the 4 screws (❶~❹).
2. Remove the flat cable (J703-1, J703-2).

■ **NOTE**

- Insert the projection on the angle into the hole of the bottom board ass'y and then install the Main P.C.B.

[Bottom view]

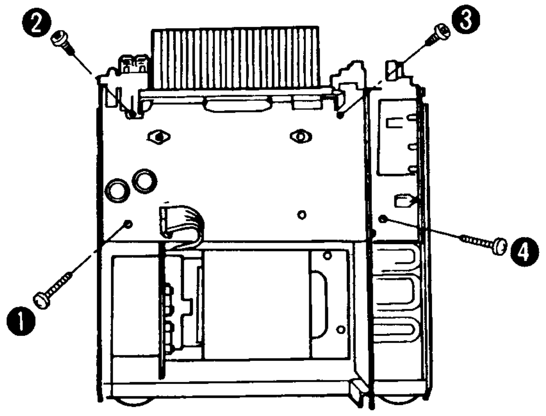

Projection


Angle
Main P.C.B.
Rib

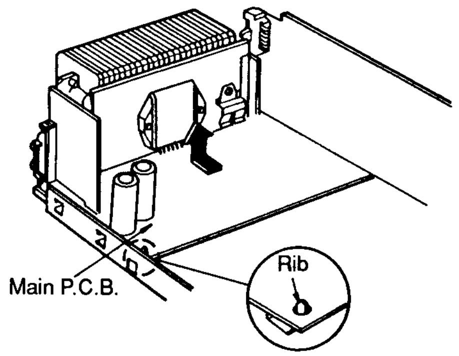
3. Remove the rib.
4. Remove the main P.C.B. in the direction of arrow.

Ref. No. 13	How to check the Main P.C.B.
Procedure 1→2→4→11 →13	

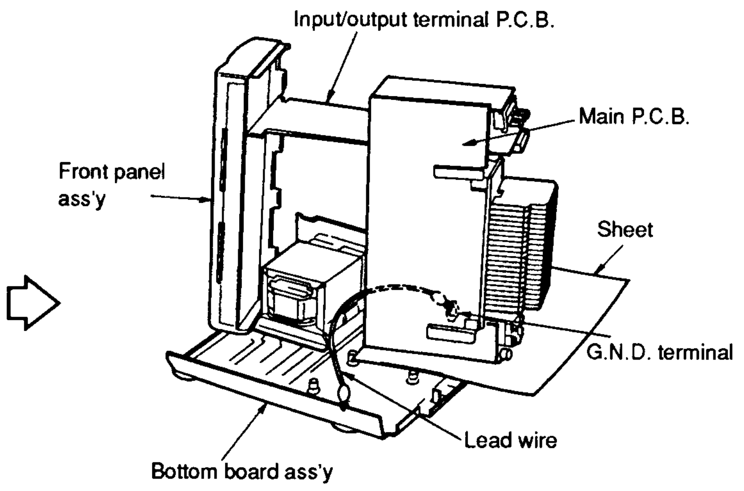
- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as shown below.



1. Remove the 4 screws (❶~❹).


Main P.C.B.
Rib

2. Remove the rib.
3. Remove the main P.C.B. in the direction of arrow.

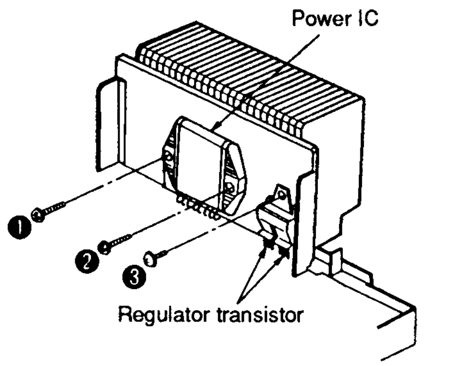

Input/output terminal P.C.B.
Main P.C.B.
Front panel ass'y
Sheet
G.N.D. terminal
Lead wire
Bottom board ass'y

4. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.
5. Reinstall the front panel ass'y to the input/output terminal P.C.B.

Ref. No. 14	Removal of the Power IC and Regulator Transistor
Procedure 1→2→4→6 →7→11→12→14	

1. Unsolder the power IC or regulator transistors.
2. Remove the 3 screws (❶~❸).

- When mounting the power IC or regulator transistor, apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.


Power IC
❶
❷
❸
Regulator transistor

Ref. No. 15	Removal of the Fan Ass'y
Procedure 1→11→15	

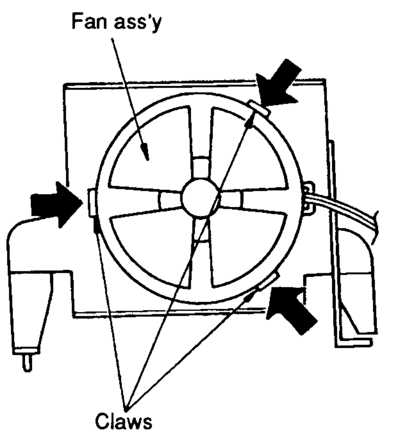

Fan ass'y
Claws

Fig.1

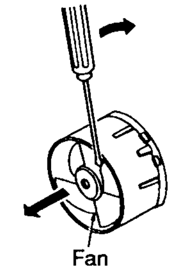


Fig.2

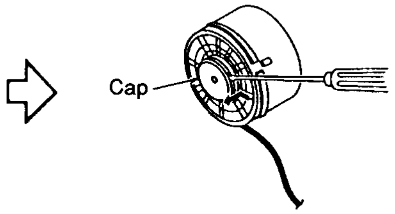


Fig.3

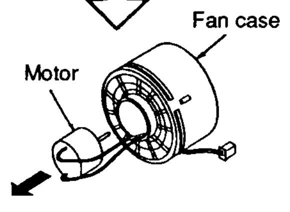

Motor
Fan case

Fig.4

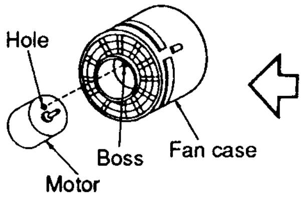
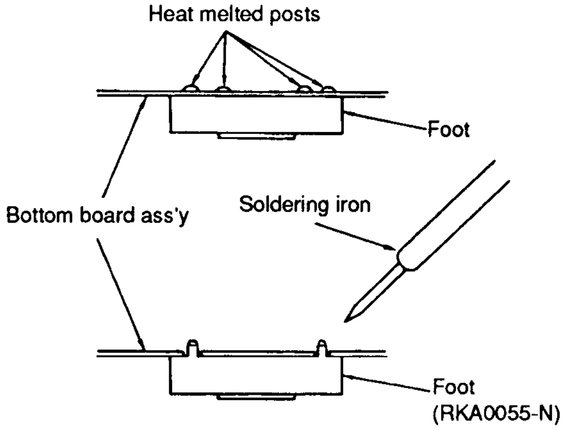

Hole
Boss
Fan case
Motor

Fig.5

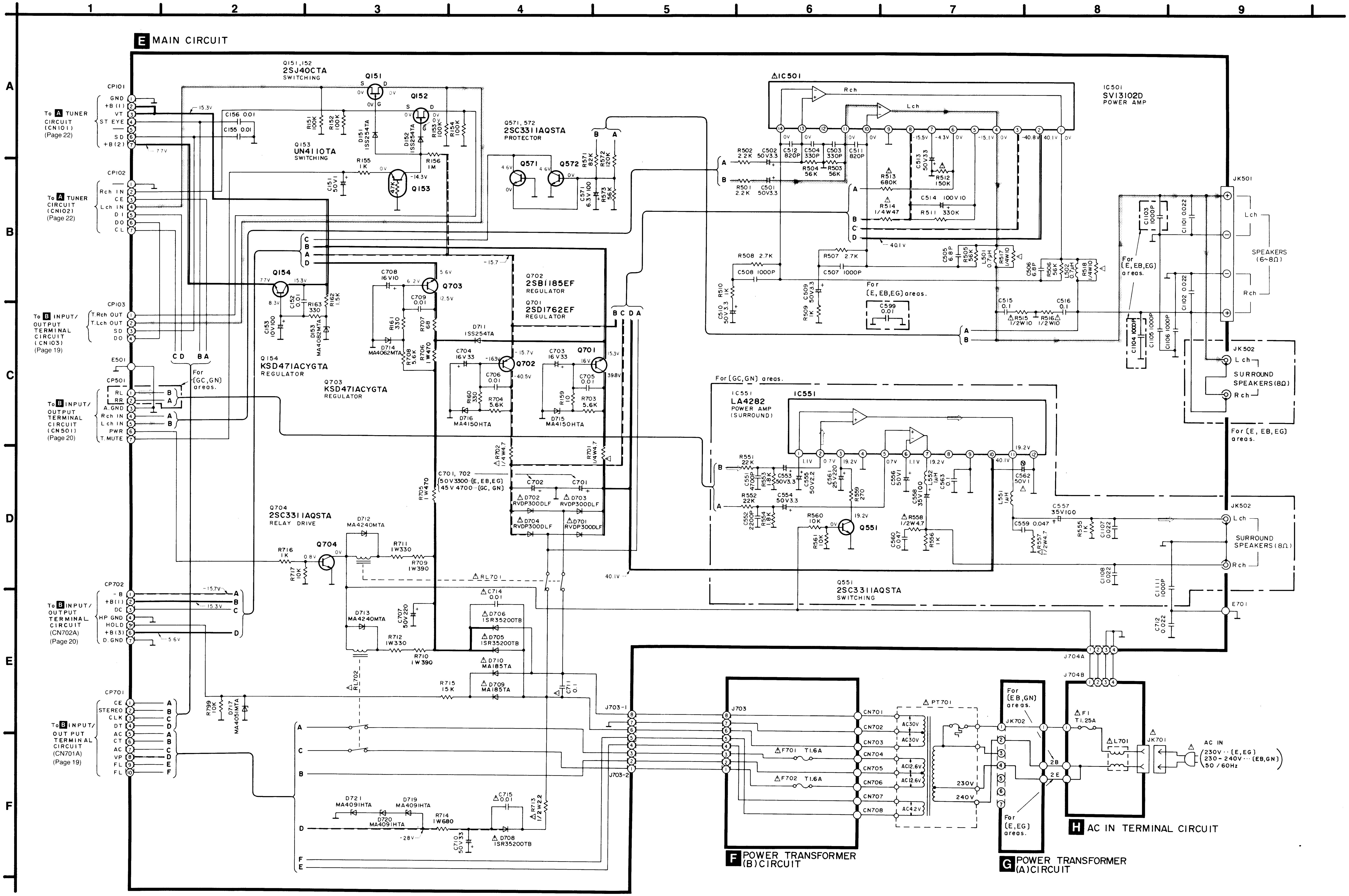
1. Release the 3 claws (shown in Fig. 1).
2. Insert a screwdriver at the root of the fan (shown in Fig. 2).
3. Remove the cap (shown in Fig.3).
4. Remove the motor from the fan case (shown in Fig. 4).
5. When mounting the motor, align the fan case projection with the hole of the motor (shown in Fig.5).

• Replacement of the Foot

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the Bottom board ass'y , melt the 4 posts with a soldering iron.


Heat melted posts
Foot
Bottom board ass'y
Soldering iron
Foot
(RKA0055-N)

■ SCHEMATIC DIAGRAM •MAIN, POWER TRANSFORMER (A)/(B) AND AC IN TERMINAL CIRCUIT (Parts list on pages 33~37.)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
E MAIN CIRCUIT
CP101
GND
+B(1)
VT
ST EYE
SD
+B(2)
To A TUNER CIRCUIT (CN101) (Page 22)
CP102
Rch IN
CE
Lch IN
DI
DO
CL
To A TUNER CIRCUIT (CN102) (Page 22)
CP103
T.Rch OUT
T.Lch OUT
SD
DO
To B INPUT/ OUTPUT TERMINAL CIRCUIT (CN103) (Page 19)
E501
CP501
RL
RR
A.GND
Rch IN
Lch IN
PWR
T.MUTE
To B INPUT/ OUTPUT TERMINAL CIRCUIT (CN501) (Page 20)
For (GC,GN) areas.
CP702
-B
+B(1)
DC
HP GND
HOLD
+B(3)
D.GND
To B INPUT/ OUTPUT TERMINAL CIRCUIT (CN702A) (Page 20)
CP701
CE
STEREO
CLK
DT
AC
CT
AC
VP
FL
FL
To B INPUT/ OUT PUT TERMINAL CIRCUIT (CN701A) (Page 19)
Q151,152 2SJ40CTA SWITCHING
Q151
Q152
Q153 UN4110TA SWITCHING
C156 0.01
C155 0.01
R151 100K
R152 100K
D151 1SS254TA
D152 1SS254TA
R153 100K
R154 100K
R155 1K
R156 1M
C151 50V1
Q153
Q154
C152 0.01
R163 330
R162 1.5K
C153 10V100
D153 MA4082MTA
Q154 KSD471ACYGTA REGULATOR
Q703 KSD471ACYGTA REGULATOR
Q571, 572 2SC3311AQSTA PROTECTOR
Q571
Q572
R571 82K
R572 120K
C571 6.3V100
R573 56K
C708 16V10
C709 0.01
R161 330
R707 68
D714 MA4062MTA
R708 5.6K
R706 1W470
D711 1SS254TA
Q703
Q702 2SB1185EF REGULATOR
Q701 2SD1762EF REGULATOR
C704 16V33
Q702
C706 0.01
R160 330
R704 5.6K
D716 MA4150HTA
C703 16V33
Q701
C705 0.01
R159 10
R703 5.6K
D715 MA4150HTA
R702 1/4W4.7
R701 1/4W4.7
R705 1W470
C701, 702 (50V3300 (E,EB,EG) 45V4700 (GC,GN)
C702
C701
D702 RVDP300DLF
D703 RVDP300DLF
D704 RVDP300DLF
D701 RVDP300DLF
Q704 2SC3311AQSTA RELAY DRIVE
Q704
R716 1K
R717 10K
D712 MA4240MTA
R711 1W330
R709 1W390
RL701
C714 0.01
D713 MA4240MTA
C707 50V220
D706 1SR35200TB
D705 1SR35200TB
R712 1W330
R710 1W390
D710 MA185TA
D709 MA185TA
R715 15K
RL702
C711 0.1
R799 10K
D717 MA4051MTA
J703-1
J703-2
D721 MA4091HTA
D719 MA4091HTA
D720 MA4091HTA
R714 1W680
C715 0.01
R713 1/2W2.2
C716 50V33
D708 1SR35200TB
IC501
IC501 SVI3102D POWER AMP
Rch
Lch
R502 2.2K
C502 50V3.3
C512 820P
C504 330P
C503 330P
C511 820P
R501 2.2K
C501 50V3.3
R504 56K
R503 56K
R513 680K
C513 50V33
R512 150K
R514 1/4W47
C514 100V10
R511 330K
R508 2.7K
C508 1000P
R507 2.7K
C507 1000P
R510 1K
C510 50V3.3
R509 1K
C509 50V3.3
For (E,EB,EG) areas.
C599 0.01
C505 6.8P
R505 56K
L501 0.7μH
R517 1/4W10
C506 6.8P
R506 56K
L502 0.7μH
R518 1/4W10
C515 0.1
C516 0.1
R515 1/2W10
R516 1/2W10
C1103 1000P
C1101 0.022
C1102 0.022
C1104 1000P
C1105 1000P
C1106 1000P
For (E,EB,EG) areas.
JK501
SPEAKERS (6~8Ω)
JK502
SURROUND SPEAKERS(8Ω)
For (E, EB, EG) areas.
For (GC,GN) areas.
IC551 LA4282 POWER AMP (SURROUND)
IC551
R551 22K
C551 4700P
R553 1.8K
C553 50V3.3
C555 50V2.2
C561 25V220
R559 270
C556 50V1
C558 35V100
L552 1μH
C563 0.1
C562 50V1
R552 22K
C552 2200P
R554 1.8K
C554 50V3.3
R560 10K
R561 10K
Q551
C560 0.047
R558 1/2W4.7
R556 1K
L551 1μH
C557 35V100
C559 0.047
R557 1/2W4.7
R555 1K
C1107 0.022
C1108 0.022
C1111 1000P
Q551 2SC3311AQSTA SWITCHING
E701
C712 0.022
J704A
J704B
J703
CN701
CN702
CN703
CN704
CN705
CN706
CN707
CN708
F701 T1.6A
F702 T1.6A
PT701
AC30V
AC30V
AC12.6V
AC12.6V
AC42V
230V
240V
F POWER TRANSFORMER (B) CIRCUIT
For (EB,GN) areas.
JK702
2B
2E
For (E,EG) areas.
G POWER TRANSFORMER (A) CIRCUIT
F1 T1.25A
L701
JK701
AC IN (230V··· (E,EG) 230~240V··· (EB,GN) 50/60Hz)
H AC IN TERMINAL CIRCUIT
-15.3V
-7.7V
-14.3V
-15.7V
-40.1V
-28V
40.1V
19.2V

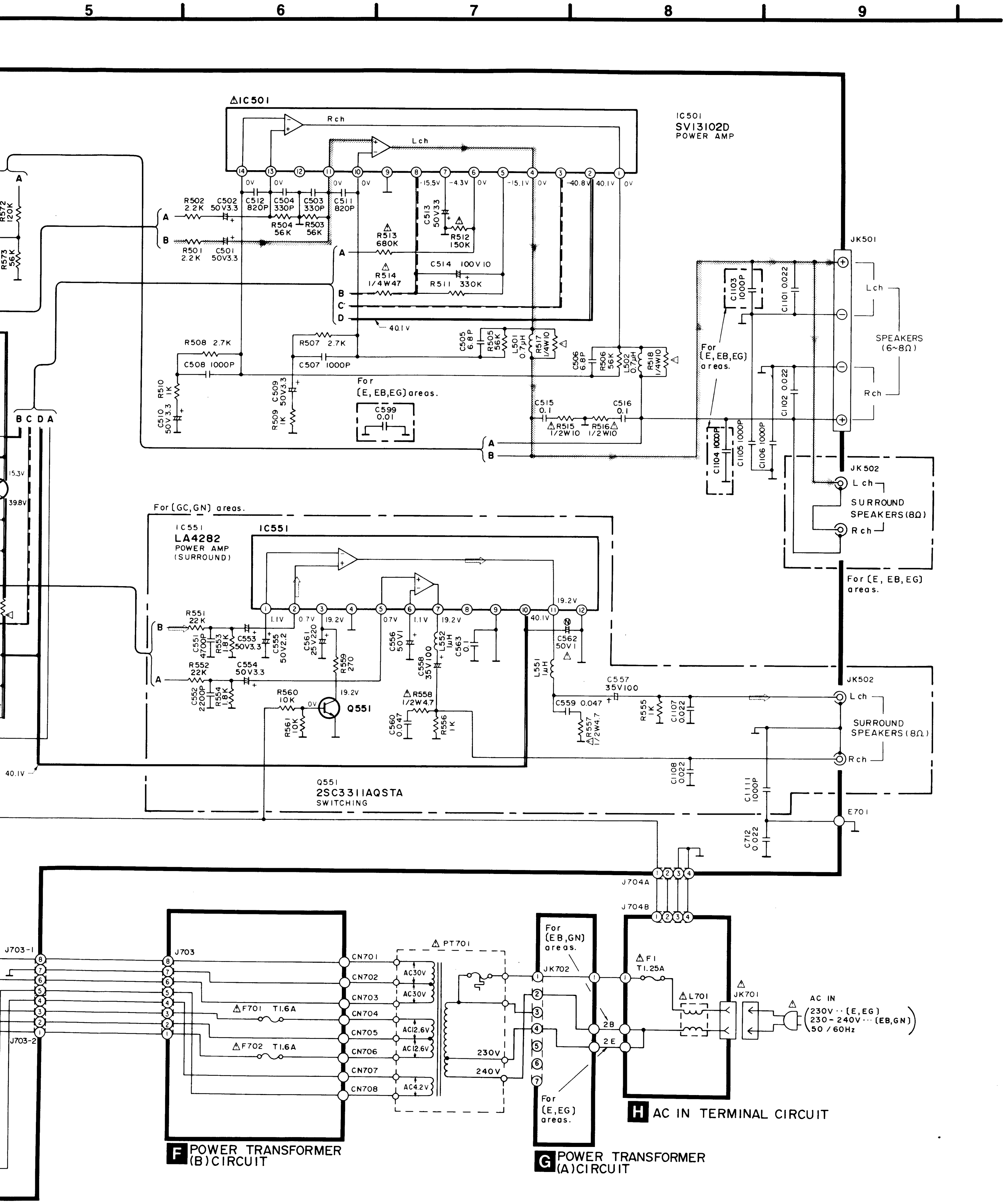
Notes:
- S601 :
- S602 :
- S603 :
- S604 :
- S605 :
- S606 :
- S607 :
- S608 :
- S609 :
- S610 :
- S611 :
- S612 :
- S613 :
- S614 :
- S615 :
- S616 :
- S617 :
- S618 :
- S619 :
- S620 :
- S701 :
- Indicated volt
chassis taken
Therefore, the
No mark: FM
- Important saf
Components
Furthermore,
are used. Wh

- Caution!
IC and LSI ar
Secondary tr
Cover the par
Ground the s
Put a conduc
Do not touch
- The supply p

Ref. No.
IC202
IC203 IC351
IC301
IC602

- This schema

C IN TERMINAL CIRCUIT (Parts list on pages 33~37.)


5
6
7
8
9
△IC501
IC501
SV13102D
POWER AMP
Rch
Lch
JK501
SPEAKERS (6~8Ω)
For (E, EB, EG) areas.
JK502
SURROUND SPEAKERS (8Ω)
For (GC, GN) areas.
IC551
LA4282
POWER AMP
(SURROUND)
Q551
2SC3311AQSTA
SWITCHING
E701
J704A
J704B
J703
J703-1
J703-2
△PT701
△F701 T1.6A
△F702 T1.6A
CN701
CN702
CN703
CN704
CN705
CN706
CN707
CN708
JK702
△F1 T1.25A
△L701
△JK701
AC IN
230V··(E, EG)
230~240V···(EB, GN)
50/60Hz
For (EB, GN) areas.
For (E, EG) areas.
230V
240V

F POWER TRANSFORMER (B) CIRCUIT

G POWER TRANSFORMER (A) CIRCUIT

H AC IN TERMINAL CIRCUIT

Notes:

- S601 : Power "STANDBY ⏻/ON" switch (POWER/STANDBY ⏻/ON)
- S602 : Timer recording switch (REC TIMER)
- S603 : Timer play switch (PLAY TIMER)
- S604 : Clock/timer switch (CLOCK/TIMER)
- S605 : Timer select switch (▼)
- S606 : Timer select switch (▲)
- S607 : Setting switch (SET)
- S608 : Preset memory switch (MEMORY, -MANUAL, –AUTO)
- S609 : Preset tuning switch (▼)
- S610 : Preset tuning switch (▲)
- S611 : Band select/allocation charge switch (-BAND –ALLOCATION)
- S612 : Tuning switch (▼)
- S613 : Tuning switch (▲)
- S614 : Input selector switch (TUNER)
- S615 : Input selector switch (CD)
- S616 : Input selector switch (TAPE)
- S617 : Input selector switch (PHONO)
- S618 : Input selector switch (DAT)
- S619 : Input selector switch (VDP)
- S620 : Input selector switch (VCR)
- S701 : VOLTAGE SELECTOR switch in "220 V" position (110 V/127 V/220 V/240 V) for (GC) area only
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
  No mark: FM mode ( ): MW mode < >: LW mode

- Important safety notice:
  Components identified by △ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

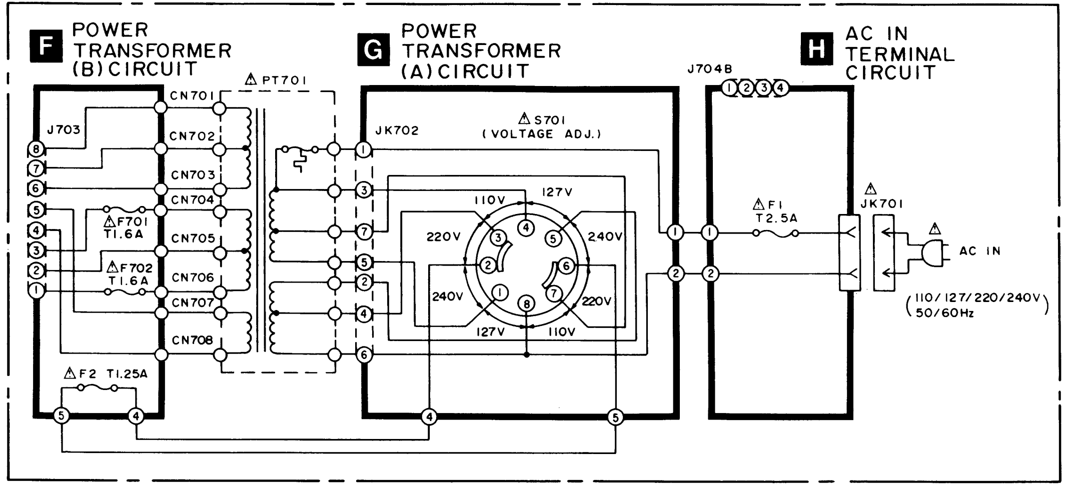
- **Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the work table.
  Do not touch the legs of IC or LSI with the fingers directly.
- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC202	M5219FPTA	M5219FP
IC203 IC351	BA4558FT1	SVIBA4558F
IC301	M5218AL	M5218L
IC602	RCDHC-278-E	RCDHC-278

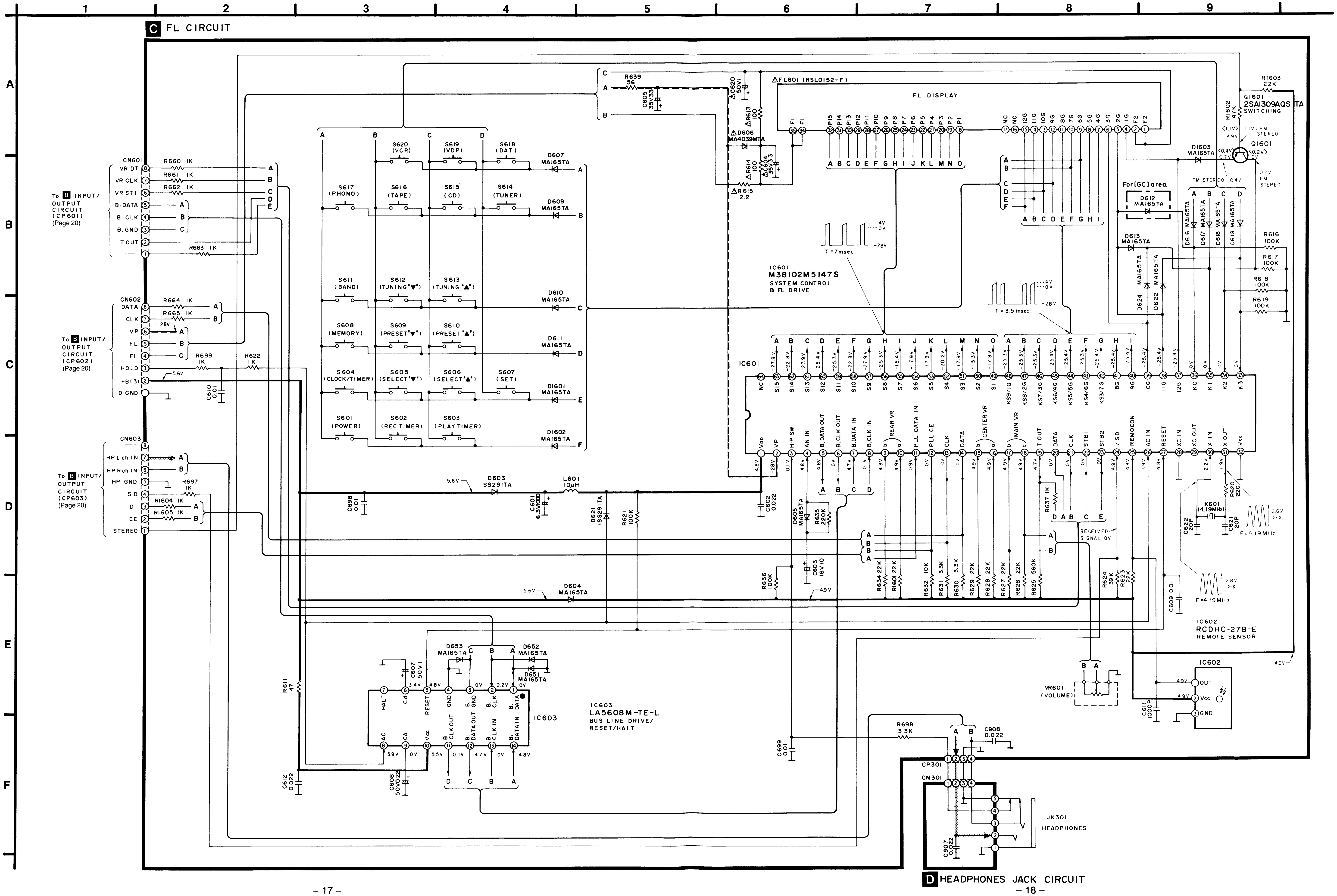
——— : **Positive voltage line**
- - - - : **Negative voltage line**
▨ : **AF signal line**
⇨ : **Surround SP. drive signal line**

- **This schematic diagram may be modified at any time with the development of new technology.**

Power Source For (GC) area.


F POWER TRANSFORMER (B) CIRCUIT
G POWER TRANSFORMER (A) CIRCUIT
H AC IN TERMINAL CIRCUIT
△PT701
J703
JK702
△S701 (VOLTAGE ADJ.)
J704B
△F701 T1.6A
△F702 T1.6A
△F2 T1.25A
△F1 T2.5A
△JK701
AC IN
110V
127V
220V
240V
(110/127/220/240V)
50/60Hz

■ SCHEMATIC DIAGRAM •FL AND HEADPHONES CIRCUIT (Parts list on pages 33~37.)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
C FL CIRCUIT
D HEADPHONES JACK CIRCUIT
CN601
VR DT
VR CLK
VR STI
B·DATA
B·CLK
B.GND
T.OUT
To B INPUT/OUTPUT CIRCUIT (CP601) (Page 20)
R660 1K
R661 1K
R662 1K
R663 1K
CN602
DATA
CLK
VP
FL
FL
HOLD
+B(3)
D.GND
To B INPUT/OUTPUT CIRCUIT (CP602) (Page 20)
R664 1K
R665 1K
R699 1K
R622 1K
C610 0.01
CN603
HP L ch IN
HP R ch IN
HP GND
SD
DI
CE
STEREO
To B INPUT/OUTPUT CIRCUIT (CP603) (Page 20)
R697 1K
R1604 1K
R1605 1K
S620 (VCR)
S619 (VDP)
S618 (DAT)
S617 (PHONO)
S616 (TAPE)
S615 (CD)
S614 (TUNER)
S611 (BAND)
S612 (TUNING'▼')
S613 (TUNING'▲')
S608 (MEMORY)
S609 (PRESET'▼')
S610 (PRESET'▲')
S604 (CLOCK/TIMER)
S605 (SELECT'▼')
S606 (SELECT'▲')
S607 (SET)
S601 (POWER)
S602 (REC TIMER)
S603 (PLAY TIMER)
D607 MA165TA
D609 MA165TA
D610 MA165TA
D611 MA165TA
D1601 MA165TA
D1602 MA165TA
R639 56
C605 35V3.3
C620 50V1
ΔR613 100
ΔD606 MA4039MTA
ΔR614 100
ΔC604 35V3.3
ΔR615 2.2
ΔFL601 (RSL0152-F)
FL DISPLAY
T=7msec.
T=3.5msec.
IC601 M38102M5147S SYSTEM CONTROL & FL DRIVE
IC601
R1603 22K
R1602 47K
Q1601 2SA1309AQS TA SWITCHING
Q1601
D1603 MA165TA
FM STEREO
For (GC) area.
D612 MA165TA
D613 MA165TA
D616 MA165TA
D617 MA165TA
D618 MA165TA
D619 MA165TA
D624 MA165TA
D622 MA165TA
R616 100K
R617 100K
R618 100K
R619 100K
D603 1SS291TA
L601 10μH
C698 0.01
C601 6.3V1000
D621 1SS291TA
R621 100K
C602 0.022
D605 MA165TA
R635 220K
R637 1K
C603 16V10
R636 100K
RECEIVED SIGNAL: 0V
X601 (4.19MHz)
C622 20P
C621 20P
R620 220
F=4.19MHz
D604 MA165TA
R634 22K
R1601 22K
R632 10K
R631 3.3K
R630 3.3K
R629 22K
R628 22K
R627 22K
R626 22K
R625 560K
R624 39K
R623 22K
C609 0.01
IC602 RCDHC-278-E REMOTE SENSOR
IC602
OUT
Vcc
GND
C611 1000P
VR601 (VOLUME)
D653 MA165TA
D652 MA165TA
D651 MA165TA
C607 50V1
R611 47
C612 0.022
C608 50V0.22
IC603
IC603 LA5608M-TE-L BUS LINE DRIVE/RESET/HALT
R698 3.3K
C908 0.022
C699 0.01
CP301
CN301
JK301 HEADPHONES
C907 0.022

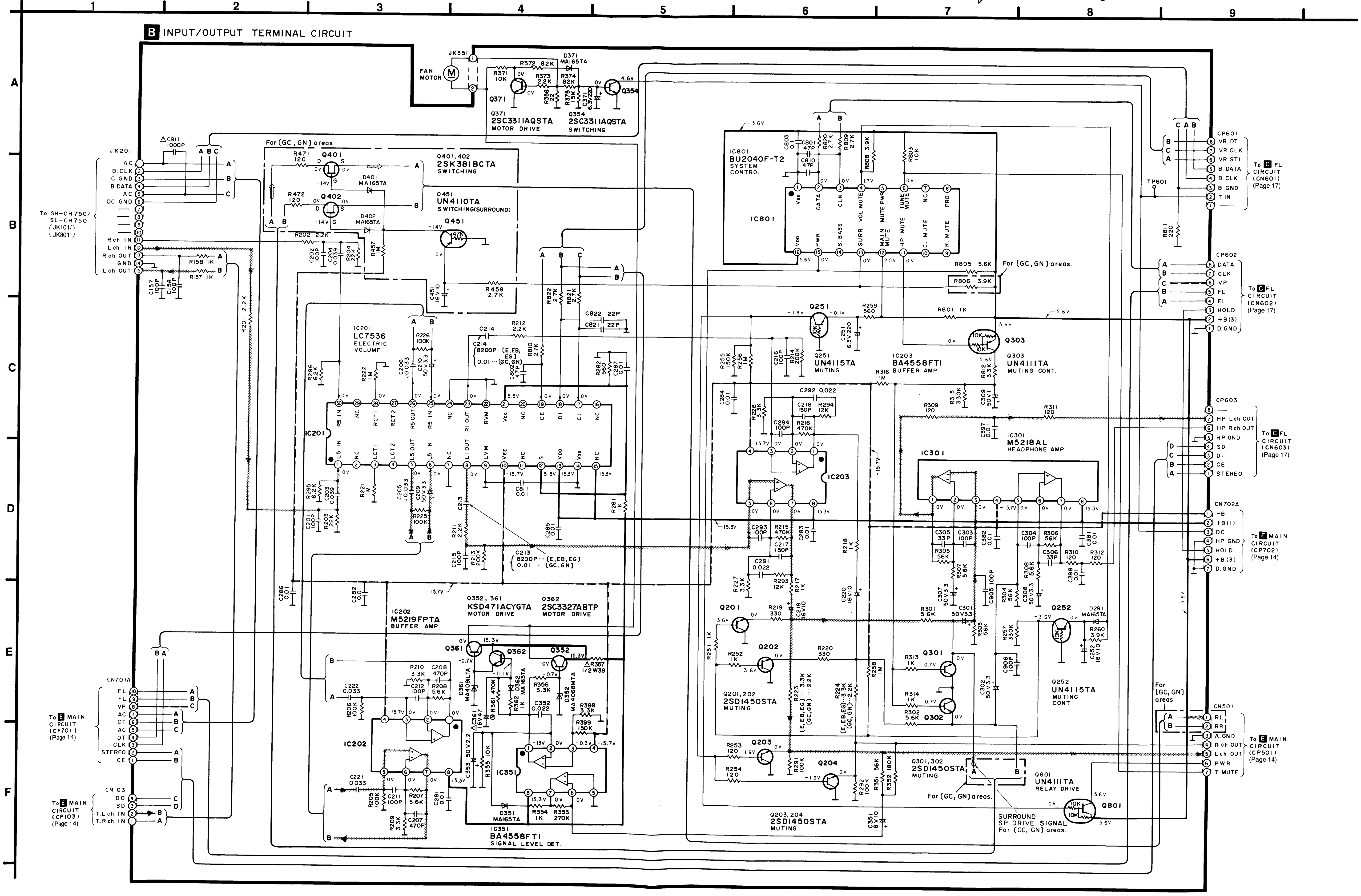
■ SCHEMATIC DIAGRAM •INPUT/OUTPUT TERMINAL CIRCUIT (Parts list on pages 33~37.)

▬▬▬ : Positive voltage line

– – – – : Negative voltage line

▨ : AF signal line

⇨ : Surround SP. drive signal line


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
B INPUT/OUTPUT TERMINAL CIRCUIT
JK351
FAN MOTOR
R371 10K
R372 82K
D371 MA165TA
R373 2.2K
R374 82K
R358 22
R375 15K
C371 6.3V220
Q371
Q354
Q371 2SC3311AQSTA MOTOR DRIVE
Q354 2SC3311AQSTA SWITCHING
JK201
AC
B.CLK
C.GND
B.DATA
AC
DC.GND
Rch IN
Lch IN
Rch OUT
GND
Lch OUT
To SH-CH750/ SL-CH750 (JK101/ JK801)
ΔC911 1000P
R158 1K
R157 1K
C157 100P
C158 100P
R201 2.2K
For (GC, GN) areas.
R471 120
Q401
R472 120
Q402
D401 MA165TA
D402 MA165TA
Q401, 402 2SK381BCTA SWITCHING
Q451 UN4110TA SWITCHING(SURROUND)
Q451
R202 2.2K
C202 100P
C204 0.039
R204 22K
R457 1M
C451 16V10
R459 2.7K
IC201 LC7536 ELECTRIC VOLUME
R226 100K
C206 J0.033
C210 50V3.3
R222 1M
R296 6.2K
C214 8200P···(E,EB,EG) 0.01···(GC,GN)
R212 2.2K
R810 2.7K
C802 47P
R822 2.7K
R821 2.7K
C822 22P
C821 22P
R282 560
C287 0.01
IC201
R5 IN
NC
RCT1
RCT2
R5 OUT
R1 OUT
RVM
Vcc
CE
DI
CL
L5 IN
LCT1
LCT2
L5 OUT
L1 OUT
LVM
VEE
S
VDD
Vss
C811 0.01
R295 6.2K
C203 0.039
C201 100P
R203 22K
R221 1M
C205 J0.033
C209 50V3.3
R225 100K
C213 8200P···(E,EB,EG) 0.01···(GC,GN)
R211 2.2K
C215 100P
R213 200K
C285 0.01
R281 1K
C286 0.01
C282 0.01
IC202 M5219FPTA BUFFER AMP
Q352, 361 KSD471ACYGTA MOTOR DRIVE
Q362 2SC3327ABTP MOTOR DRIVE
Q361
Q362
Q352
ΔR357 1/2W39
D361 MA4091LTA
D362 MA165TA
R361 470K
R362 1K
C361 16V47
R356 3.3K
D352 MA4068MTA
C352 0.022
R398 3.3K
R399 150K
C353 50V2.2
R355 10K
IC351
IC351 BA4558FT1 SIGNAL LEVEL DET.
D351 MA165TA
R354 1K
R353 270K
CN701A
FL
FL
VP
AC
CT
AC
DT
CLK
STEREO
CE
To E MAIN CIRCUIT (CP701) (Page 14)
C222 0.033
R206 100K
R210 3.3K
C212 100P
C208 470P
R208 5.6K
IC202
C221 0.033
R205 100K
C211 100P
R207 5.6K
R209 3.3K
C207 470P
C281 0.01
CN103
DO
SD
T.Lch IN
T.Rch IN
To E MAIN CIRCUIT (CP103) (Page 14)
IC801 BU2040F-T2 SYSTEM CONTROL
C803 0.1
C801 47P
C810 47P
R820 2.7K
R809 2.7K
R808 3.9K
R803 10K
Vss
DATA
CLK
VOL MUTE
MUTE PWR
TUNE MUTE
NC
PRO
VDD
PWR
S.BASS
SURR
MAIN MUTE
HP. MUTE
C. MUTE
R. MUTE
IC801
R805 5.6K
R806 3.9K
For (GC, GN) areas.
R801 1K
Q251
R259 560
C251 6.3V220
Q251 UN4115TA MUTING
R255 150K
R256 1M
C216 100P
R214 200K
IC203 BA4558FT1 BUFFER AMP
R316 1M
Q303
Q303 UN4111TA MUTING CONT.
R812 3.3K
C284 0.01
R228 3.3K
C292 0.022
C218 150P
R294 12K
C294 100P
R216 470K
IC203
R315 330K
C309 50V1
R309 120
R311 120
C397 0.01
IC301 M5218AL HEADPHONE AMP
IC301
C293 100P
R215 470K
C217 150P
C283 0.01
C291 0.022
R293 12K
R217 1K
R227 3.3K
R218 1K
C220 16V10
C305 33P
C303 100P
C382 0.01
R305 56K
R307 5.6K
C304 100P
R306 56K
C381 0.01
C306 33P
R310 120
R312 120
C308 50V3.3
R308 5.6K
C905 100P
C398 0.01
C307 50V3.3
R304 56K
Q201
R219 330
C219 16V10
R301 5.6K
C301 50V3.3
R303 56K
Q252
D291 MA165TA
R257 330K
R260 3.9K
C252 16V10
R251 1K
Q202
R252 1K
R220 330
R313 1K
Q301
C906 100P
R223 (E,EB,EG)···3.3K (GC,GN)···2.2K
R224 (E,EB,EG)···3.3K (GC,GN)···2.2K
R258 1M
Q201, 202 2SD1450STA MUTING
R314 1K
Q302
R302 5.6K
C302 50V3.3
Q252 UN4115TA MUTING CONT
R253 120
Q203
R291 100K
R254 120
Q204
R292 100K
R351 56K
R352 180K
C351 16V10
Q301, 302 2SD1450STA MUTING
For (GC, GN) areas.
Q801 UN4111TA RELAY DRIVE
Q801
SURROUND SP DRIVE SIGNAL For (GC, GN) areas.
Q203, 204 2SD1450STA MUTING
CP601
VR DT
VR CLK
VR STI
B. DATA
B. CLK
B. GND
T. IN
To C FL CIRCUIT (CN601) (Page 17)
TP601
R811 220
CP602
DATA
CLK
VP
FL
FL
HOLD
+B(3)
D.GND
To C FL CIRCUIT (CN602) (Page 17)
CP603
HP Lch OUT
HP Rch OUT
HP GND
SD
DI
CE
STEREO
To C FL CIRCUIT (CN603) (Page 17)
CN702A
-B
+B(1)
DC
HP GND
HOLD
+B(3)
D.GND
To E MAIN CIRCUIT (CP702) (Page 14)
For (GC, GN) areas.
CN501
RL
RR
A GND
R ch OUT
L ch OUT
PWR
T MUTE
To E MAIN CIRCUIT (CP501) (Page 14)

■ SCHEMATIC DIAGRAM •TUNER CIRCUIT (Parts list on pages 33~37.)

: AM (LW/MW) signal line

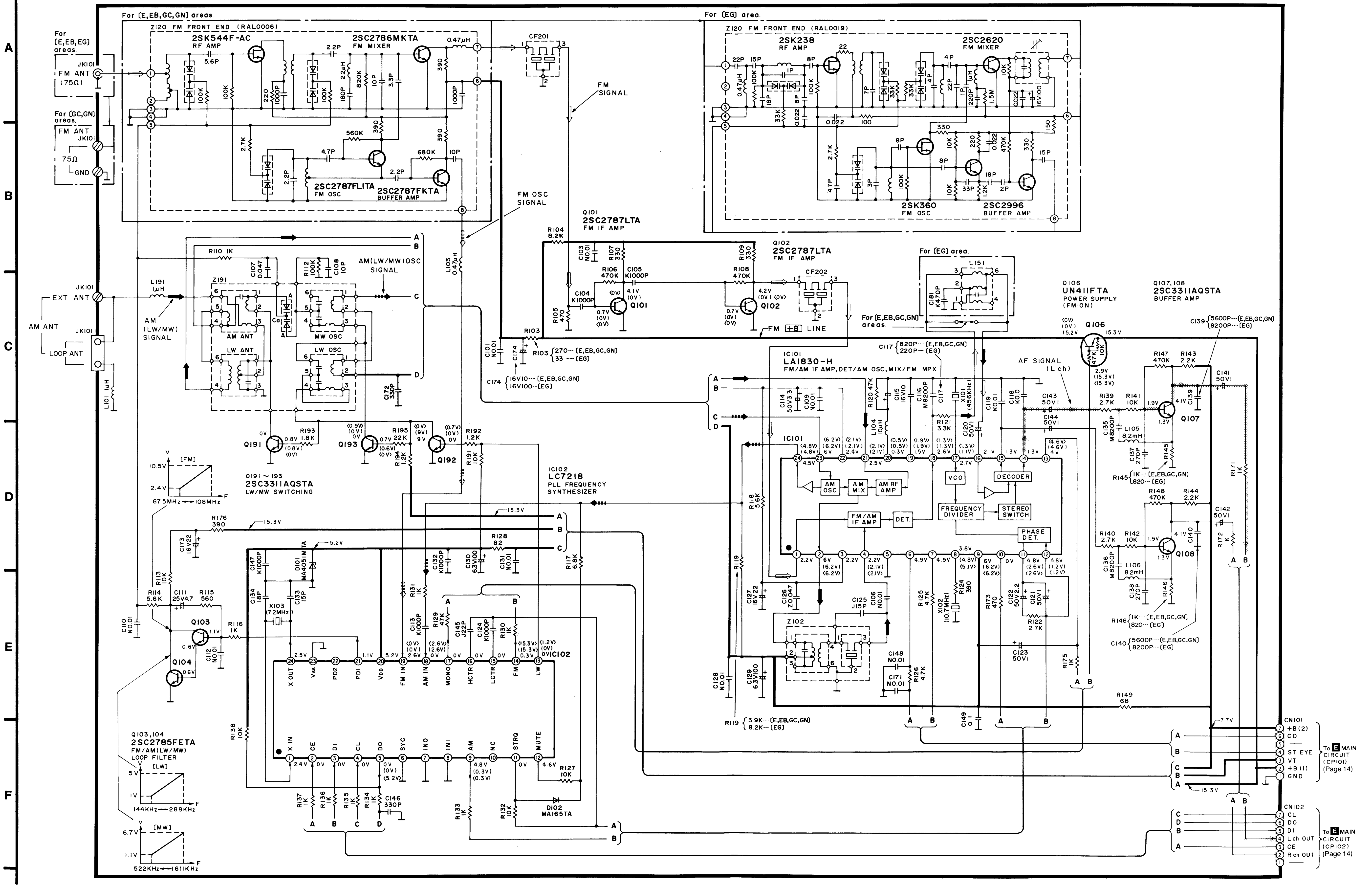
: AM (LW/MW) OSC signal line

: FM signal line

: FM OSC signal line

A TUNER CIRCUIT

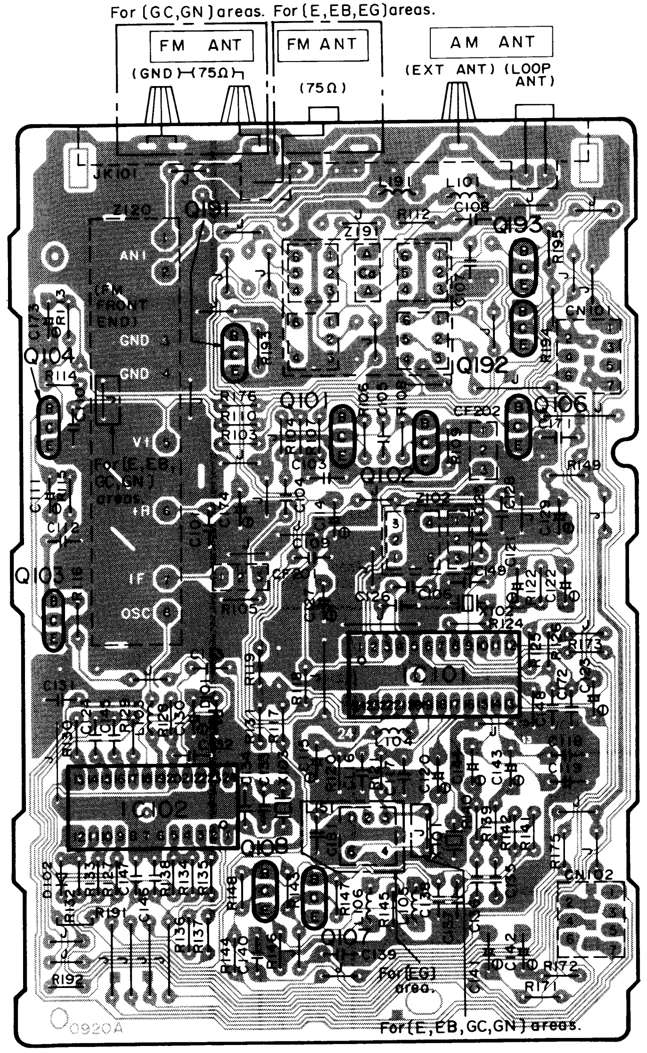
•Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. No mark: FM mode ( ): MW mode < >: LW mode


For (E,EB,GC,GN) areas.
Z120 FM FRONT END (RAL0006)
2SK544F-AC RF AMP
2SC2786MKTA FM MIXER
2SC2787FLITA FM OSC
2SC2787FKTA BUFFER AMP
For (EG) area.
Z120 FM FRONT END (RAL0019)
2SK238 RF AMP
2SC2620 FM MIXER
2SK360 FM OSC
2SC2996 BUFFER AMP
For (E,EB,EG) areas.
JK101 FM ANT (75Ω)
For (GC,GN) areas.
FM ANT JK101 75Ω GND
CF201
FM SIGNAL
FM OSC SIGNAL
Q101 2SC2787LTA FM IF AMP
Q102 2SC2787LTA FM IF AMP
CF202
FM +B LINE
For (EG) area. L151
For (E,EB,GC,GN) areas.
Q106 UN411FTA POWER SUPPLY (FM:ON)
Q107,108 2SC3311AQSTA BUFFER AMP
C139 {5600P···(E,EB,GC,GN) 8200P···(EG)
IC101 LA1830-H FM/AM IF AMP,DET/AM OSC,MIX/FM MPX
C117 {820P···(E,EB,GC,GN) 220P···(EG)
AF SIGNAL (L ch)
AM OSC
AM MIX
AM RF AMP
FM/AM IF AMP
DET.
VCO
DECODER
FREQUENCY DIVIDER
STEREO SWITCH
PHASE DET.
R145 {1K···(E,EB,GC,GN) 820···(EG)
R146 {1K···(E,EB,GC,GN) 820···(EG)
C140 {5600P···(E,EB,GC,GN) 8200P···(EG)
Z102
X101 (456KHz)
X102 (10.7MHz)
R119 {3.9K···(E,EB,GC,GN) 8.2K···(EG)
JK101 EXT ANT
AM ANT
JK101 LOOP ANT
L191 1μH
AM (LW/MW) SIGNAL
AM(LW/MW)OSC SIGNAL
Z191
AM ANT
MW OSC
LW ANT
LW OSC
Q191 ~ 193 2SC3311AQSTA LW/MW SWITCHING
R103 {270···(E,EB,GC,GN) 33 ···(EG)
C174 {16V10···(E,EB,GC,GN) 16V100···(EG)
V [FM] 10.5V 2.4V F 87.5MHz ←→ 108MHz
IC102 LC7218 PLL FREQUENCY SYNTHESIZER
X103 (7.2MHz)
D101 MA4051M TA
D102 MA165TA
Q103,104 2SC2785FETA FM/AM(LW/MW) LOOP FILTER
V [LW] 5V 1V F 144KHz ←→ 288KHz
[MW] 6.7V 1.1V F 522KHz ←→ 1611KHz
X OUT Vss PD2 PD1 VDD FM IN AM IN MONO HCTR LCTR FM LW
X IN CE DI CL DO SYC INO INI AM NC STRQ MUTE
CN101
+B(2)
CD
ST EYE
VT
+B(1)
GND
To E MAIN CIRCUIT (CP101) (Page 14)
CN102
CL
DO
DI
L ch OUT
CE
R ch OUT
To E MAIN CIRCUIT (CP102) (Page 14)
15.3V
5.2V
7.7V

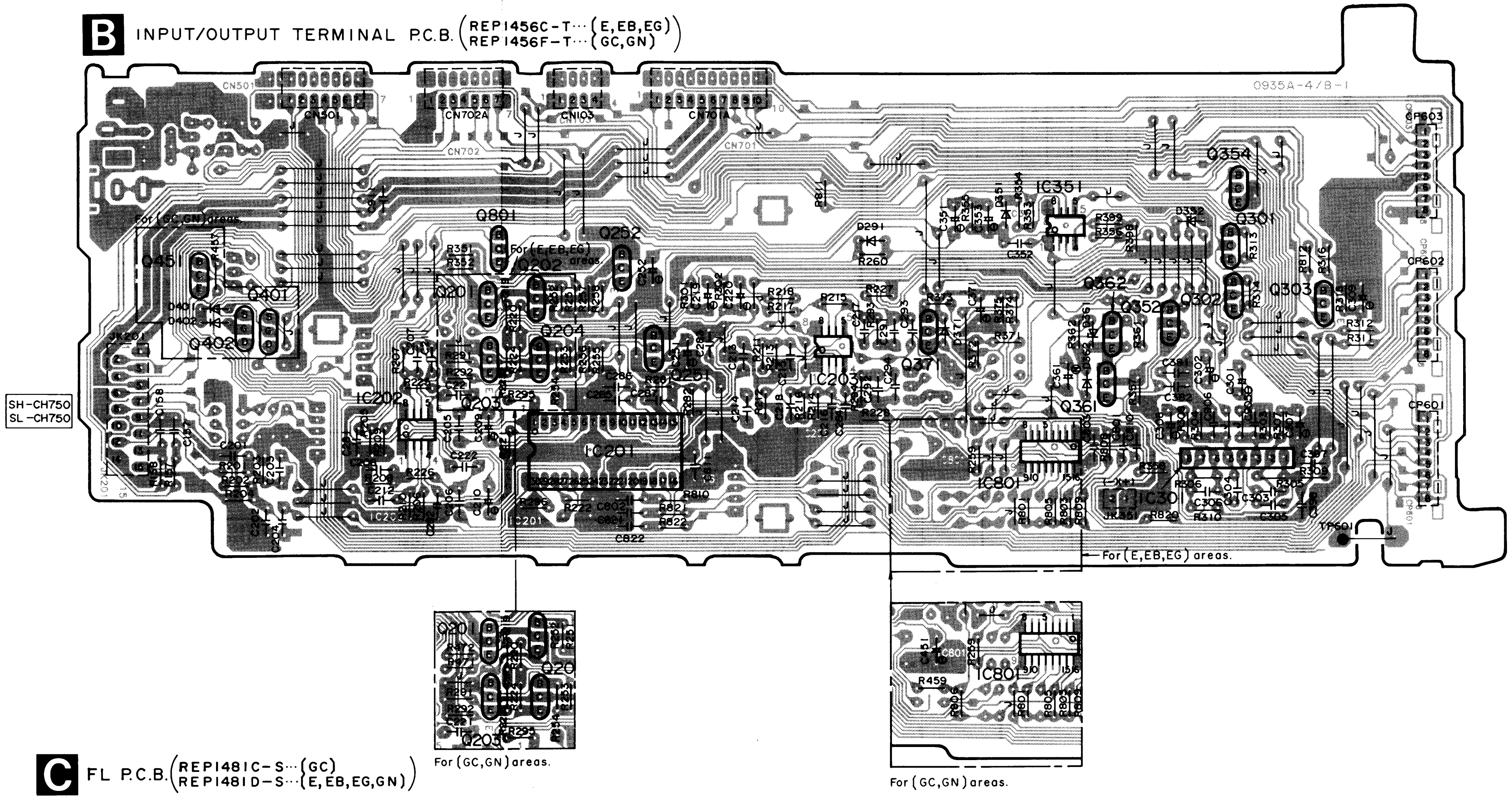
■ PRINTED CIRCUIT BOARD DIAGRAM

•This circuit board diagram may be modified at any time with the development of new technology.

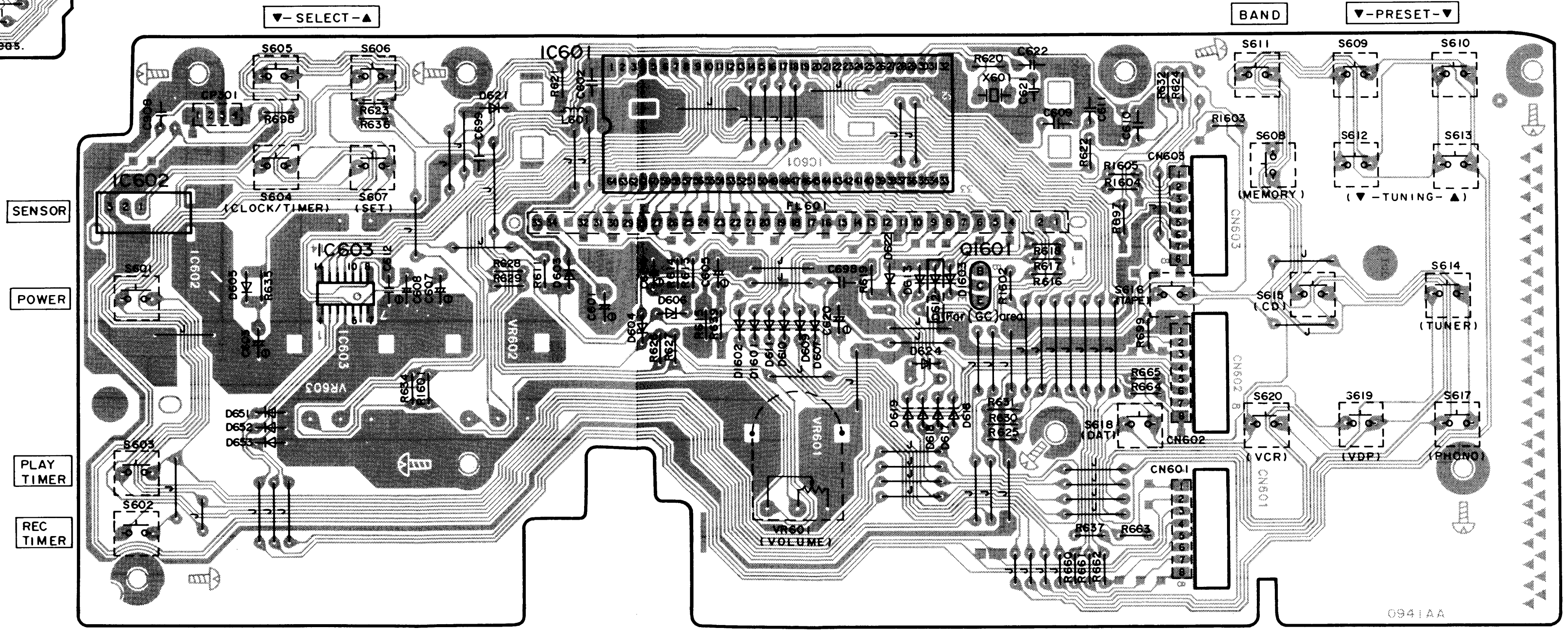
A TUNER P.C.B. (REP1452C-T··· (EG) / REP1452D-T··· (E,EB) / REP1452E-T··· (GC,GN))


For (GC,GN) areas.
For (E,EB,EG) areas.
FM ANT
(GND)
(75Ω)
FM ANT
(75Ω)
AM ANT
(EXT ANT)
(LOOP ANT)
JK101
Q191
Q193
Q192
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
IC102
For (E,EB,GC,GN) areas.
For (EG) area.
0920A

B INPUT/OUTPUT TERMINAL P.C.B. (REP1456C-T··· (E,EB,EG) / REP1456F-T··· (GC,GN))

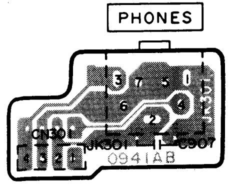

SH-CH750
SL-CH750
CN501
CN702A
CN103
CN701A
0935A-4/8-1
CP603
CP602
CP601
For (GC,GN) areas
For (E,EB,EG) areas
Q451
Q401
Q402
Q801
Q202
Q252
Q201
Q204
Q203
IC202
IC201
IC203
IC351
Q354
Q301
Q352
Q302
Q303
Q351
Q361
IC801
IC301
TP601
For (E,EB,EG) areas.
For (GC,GN) areas.
For (GC,GN) areas.

C FL P.C.B. (REP1481C-S··· (GC) / REP1481D-S··· (E,EB,EG,GN))

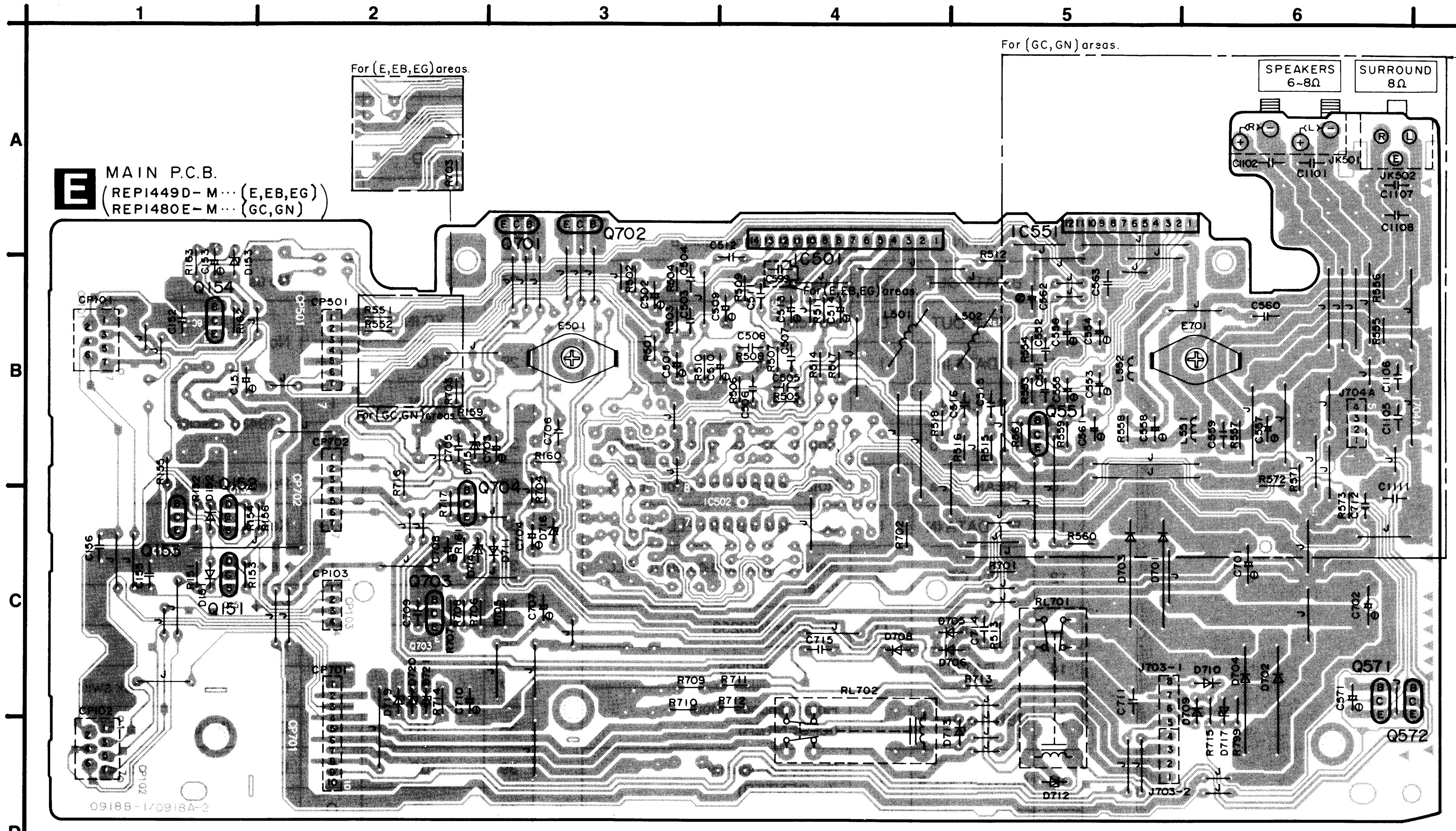

▼-SELECT-▲
BAND
▼-PRESET-▼
S605
S606
S611
S609
S610
IC601
S604
(CLOCK/TIMER)
S607
(SET)
S608
(MEMORY)
S612
S613
(▼-TUNING-▲)
SENSOR
IC602
IC603
Q1601
CN603
POWER
S601
S615
(CD)
S614
(TUNER)
S616
(TAPE)
CN602
VR602
VR603
VR601
(VOLUME)
S618
(DATA)
S620
(VCR)
S619
(VDP)
S617
(PHONO)
CN601
PLAY TIMER
S603
REC TIMER
S602
0941AA

HEADPHONES
JACK P.C.B.

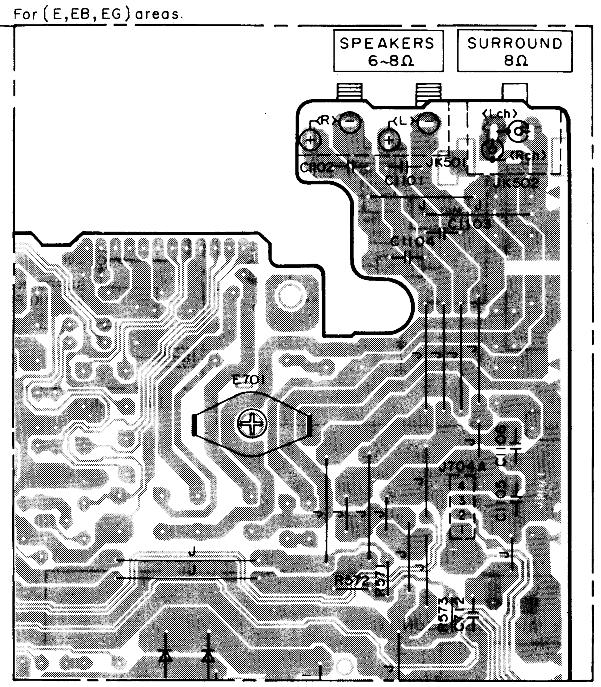
D (REP1481C-S··· (GC) / REP1481D-S··· (E,EB,EG,GN))


PHONES
JK301
CN301
0941AB

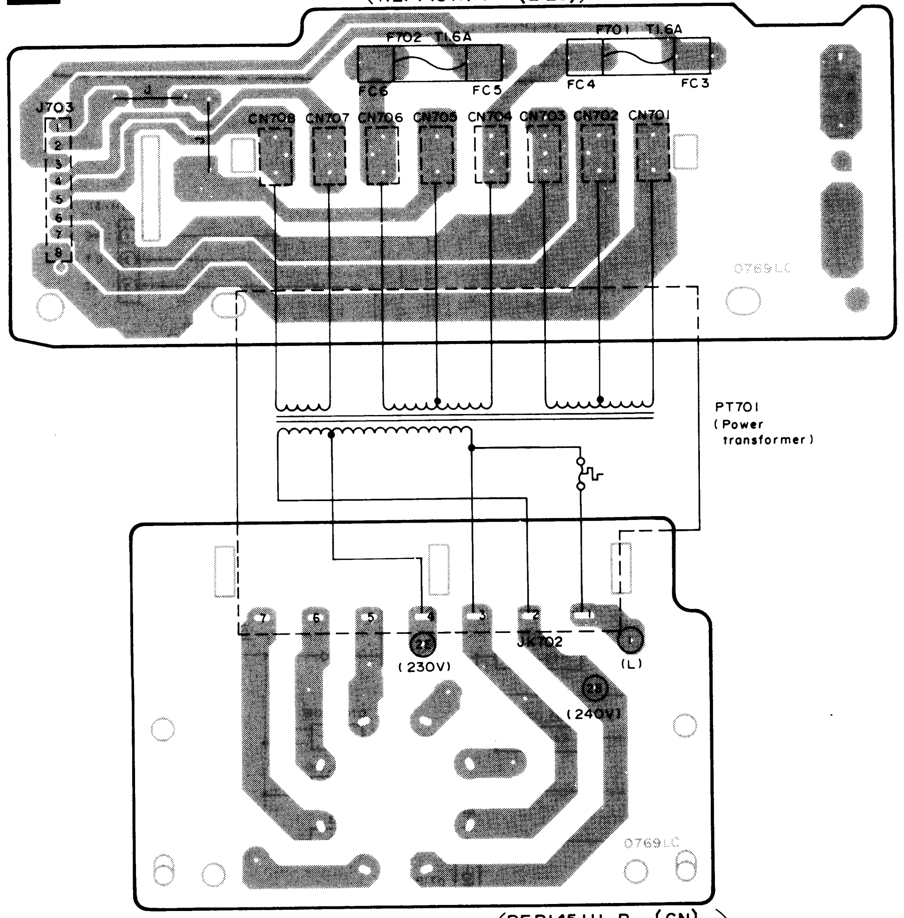
■ PRINTED CIRCUIT BOARD DIAGRAM


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
For (E,EB,EG) areas.
For (GC,GN) areas.
SPEAKERS 6~8Ω
SURROUND 8Ω
JK501
JK502
C1101
C1102
C1107
C1108
IC551
IC501
IC502
Q701
Q702
Q703
Q704
Q154
Q151
Q152
Q153
Q551
Q571
Q572
E501
E701
RL701
RL702
CP101
CP102
CP103
CP501
CP701
CP702
J703-1
J703-2
J704A
L501
L502
D712
For (E,EB,EG) areas
For (GC,GN) areas
0918B-1/0918A-2

E MAIN P.C.B.
(REP1449D-M··· (E,EB,EG)
REP1480E-M··· (GC,GN))


For (E,EB,EG) areas.
SPEAKERS 6~8Ω
SURROUND 8Ω
(Lch)
(Rch)
JK501
JK502
C1101
C1102
C1103
C1104
E701
J704A

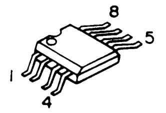
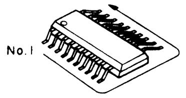
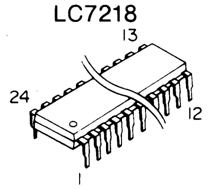
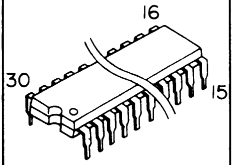
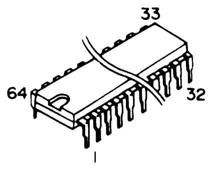
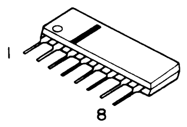
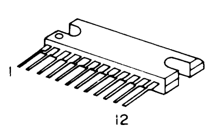
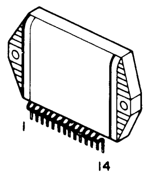
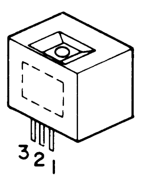
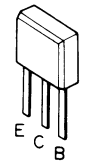
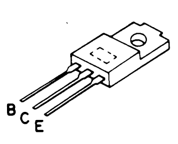
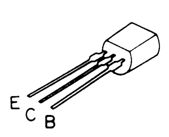
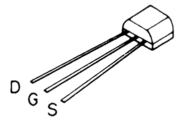
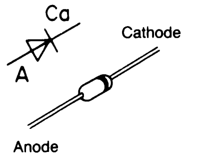
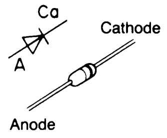
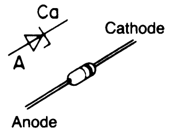
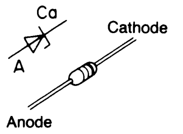
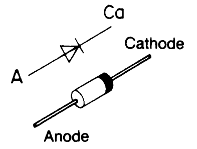
F POWER TRANSFORMER(B) P.C.B.
(REP1451H-P··· (GN)
REP1451J-P··· (EB)
REP1451K-P··· (E EG))


F702 T1.6A
F701 T1.6A
FC6
FC5
FC4
FC3
J703
CN708
CN707
CN706
CN705
CN704
CN703
CN702
CN701
0769LC
PT701
(Power transformer)
JK702
(230V)
(240V)
(L)
0769LC

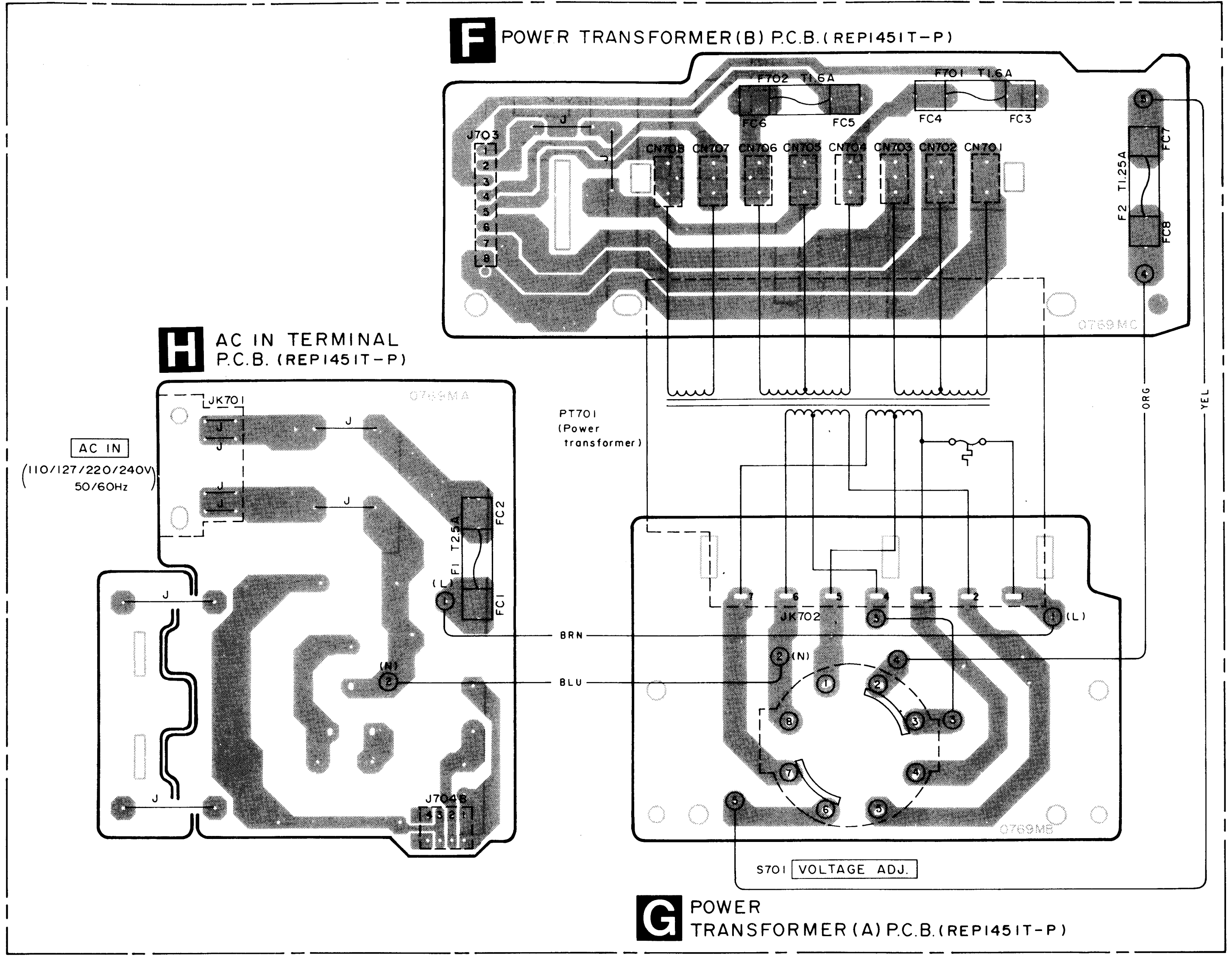
G POWER TRANSFORMER(A) P.C.B.
(REP1451H-P··· (GN)
REP1451J-P··· (EB)
REP1451K-P··· (E,EG))

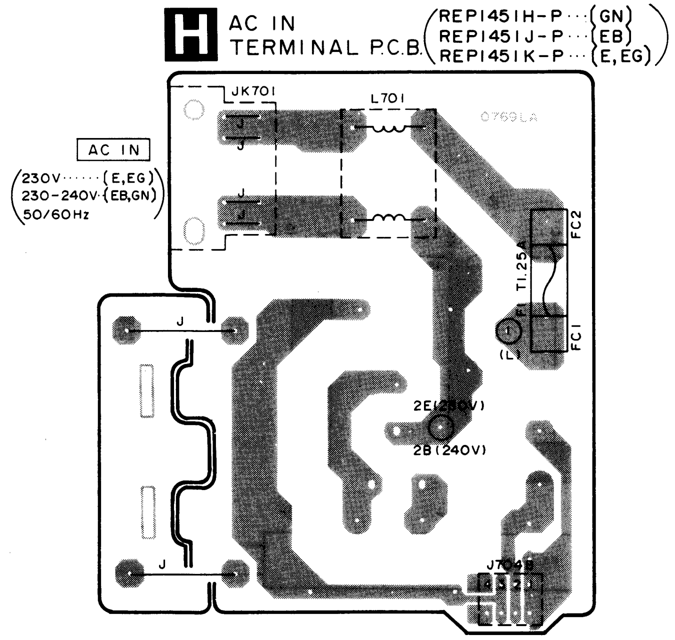
Power
(110/12
(230V
230-
50/6

•Terminal guide of IC's, transistors and diodes

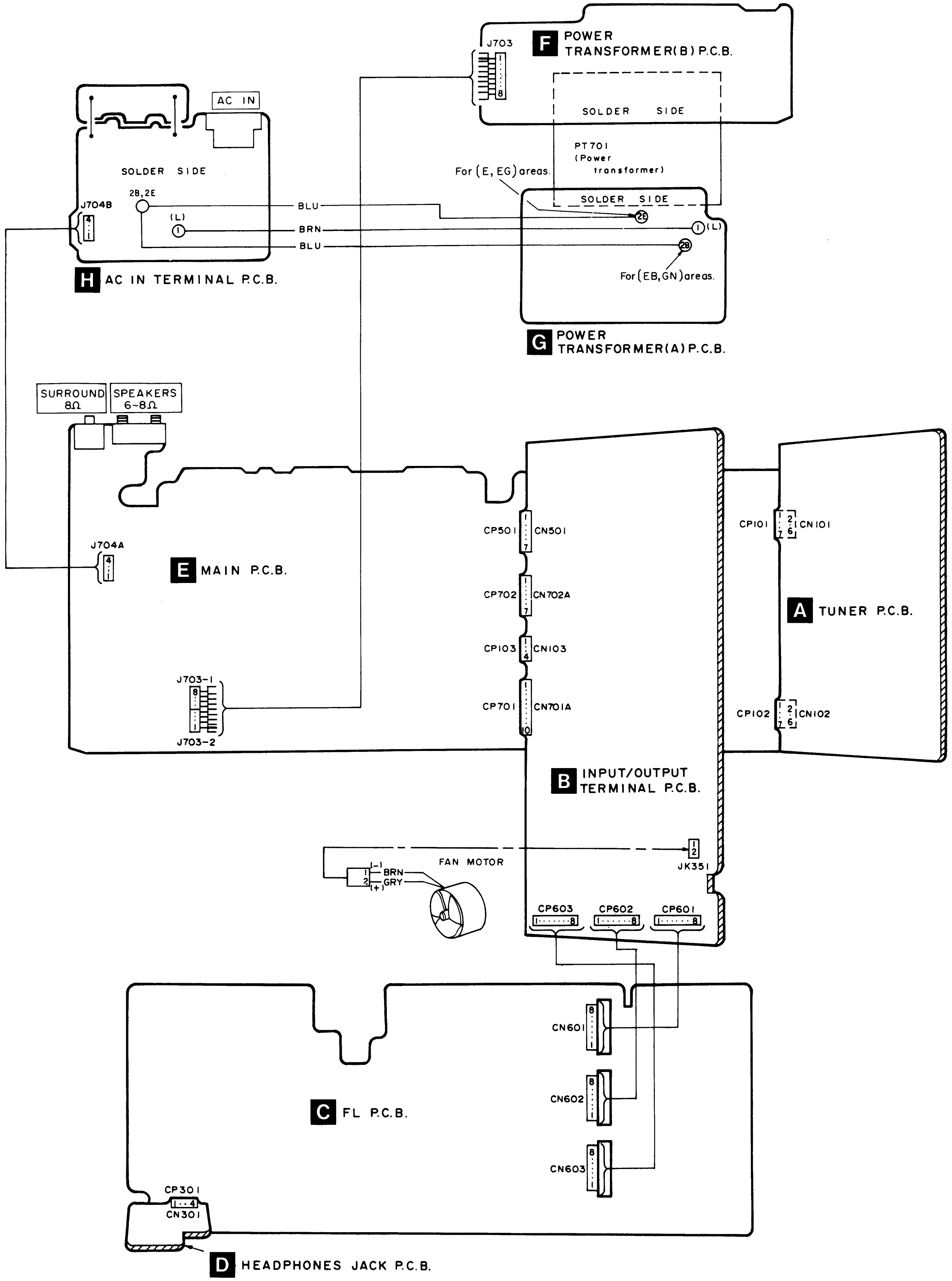
BA4558FT1  	LA5608M-TE-L 14Pin BU2040F-T2 16Pin M5219FPTA 8Pin  	LA1830-H LC7218  	LC7536  	M38102M5147S  	M5218AL  	LA4282 
SVI3102D  	RCDHC-278-E  	 UN4111TA 2SC3327ABTP	2SA1309AQSTA 2SC2785FETA 2SC2787LTA 2SC3311AQSTA 2SD1450STA UN411FTA UN4115TA UN4110TA	2SB1185EF 2SD1762EF  	KSD471ACYGTA  	2SJ40CTA 2SK381BCTA 
 Ca A Cathode Anode	MA165TA MA185TA 1SS254TA 1SR35200TB	1SS291TA  Ca A Cathode Anode	MA4150HTA MA4240MTA  Ca A Cathode Anode	 Ca A Cathode Anode	MA4039MTA MA4051MTA MA4062MTA MA4082MTA MA4091HTA MA4068MTA MA4091LTA	RVDP300DLF  Ca A Cathode Anode

Power Source P.C.B. For (GC) area.

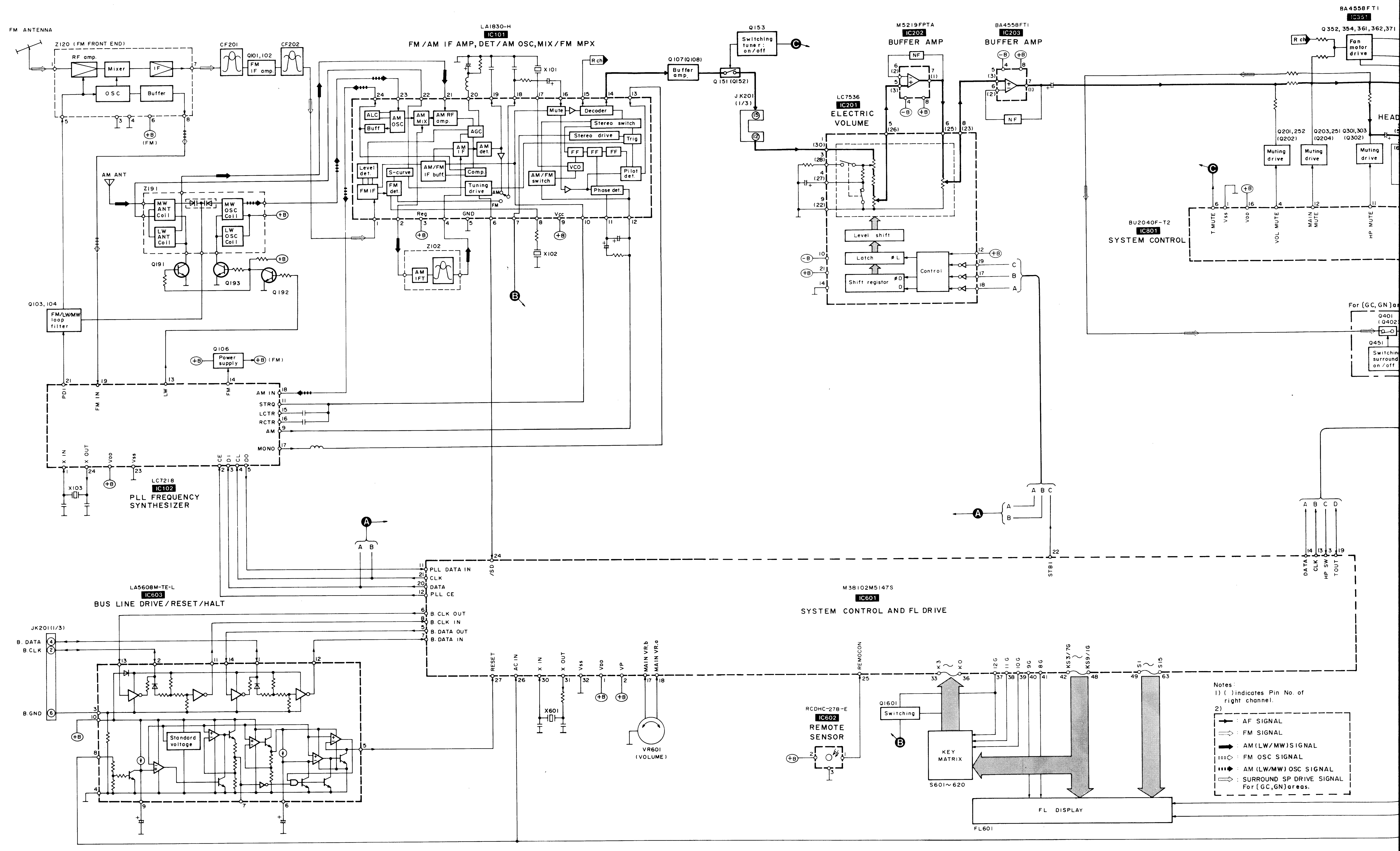

F POWER TRANSFORMER (B) P.C.B. (REP1451T-P)
J703
F702 T1.6A
F701 T1.6A
FC6
FC5
FC4
FC3
FC7
FC8
F2 T1.25A
CN708 CN707 CN706 CN705 CN704 CN703 CN702 CN701
0769MC
H AC IN TERMINAL P.C.B. (REP1451T-P)
JK701
AC IN
(110/127/220/240V 50/60Hz)
F1 T2.5A
FC1
FC2
(L)
(N)
J704B
0769MA
PT701 (Power transformer)
BRN
BLU
ORG
YEL
JK702
(L)
(N)
S701 VOLTAGE ADJ.
0769MB
G POWER TRANSFORMER (A) P.C.B. (REP1451T-P)


H AC IN TERMINAL P.C.B. (REP1451H-P···(GN) REP1451J-P···(EB) REP1451K-P···(E,EG))
JK701
L701
0769LA
AC IN
(230V······(E,EG) 230-240V·(EB,GN) 50/60Hz)
T1.25A
F1
FC1
FC2
(L)
2E(230V)
2B(240V)
J704B

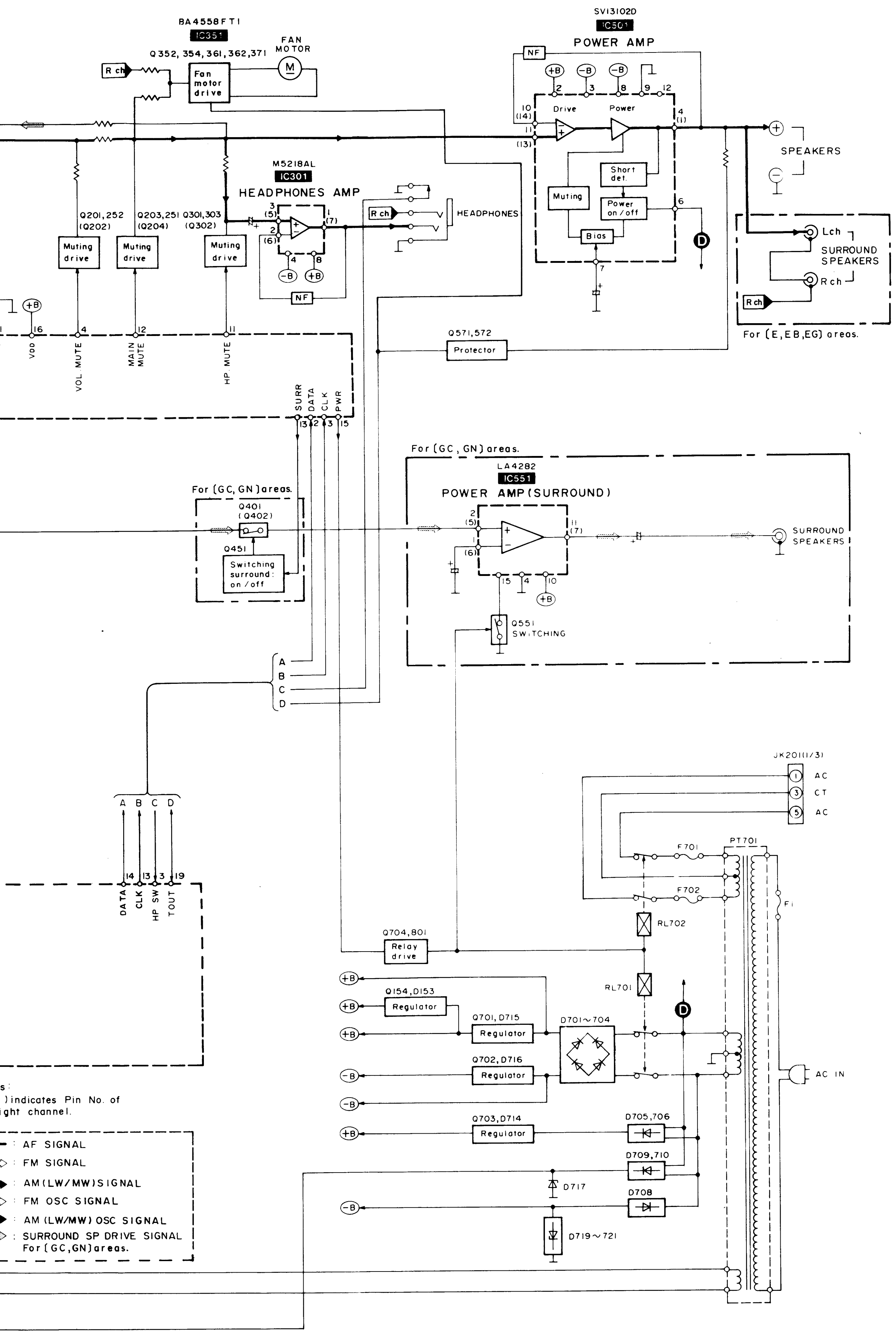
■ WIRING CONNECTION DIAGRAM


J703
F POWER TRANSFORMER(B) P.C.B.
SOLDER SIDE
PT701 (Power transformer)
For (E, EG) areas.
SOLDER SIDE
For (EB, GN) areas.
G POWER TRANSFORMER(A) P.C.B.
AC IN
SOLDER SIDE
J704B
2B, 2E
(L)
BLU
BRN
BLU
H AC IN TERMINAL P.C.B.
SURROUND 8Ω
SPEAKERS 6~8Ω
J704A
E MAIN P.C.B.
J703-1
J703-2
CP501 CN501
CP702 CN702A
CP103 CN103
CP701 CN701A
CP101 CN101
CP102 CN102
A TUNER P.C.B.
B INPUT/OUTPUT TERMINAL P.C.B.
FAN MOTOR
BRN
GRY
JK351
CP603 CP602 CP601
CN601
CN602
CN603
C FL P.C.B.
CP301
CN301
D HEADPHONES JACK P.C.B.

■ BLOCK DIAGRAM


FM ANTENNA
Z120 (FM FRONT END)
RF amp.
Mixer
IF
OSC
Buffer
(FM)
CF201
Q101,102
FM IF amp.
CF202
LA1830-H
IC101
FM/AM IF AMP, DET/AM OSC, MIX/FM MPX
ALC
Buff
AM OSC
AM MIX
AM RF amp.
AGC
AM IF
AM det.
Level det.
S-curve
AM/FM IF buff.
Comp.
FM IF
FM det.
Tuning drive
Mute
Decoder
Stereo switch
Stereo drive
Trig
FF
VCO
AM/FM switch
Pilot det
Phase det
Reg
GND
Vcc
X101
X102
Z102
AM IFT
Rch
AM ANT
Z191
MW ANT Coil
LW ANT Coil
MW OSC Coil
LW OSC Coil
Q191
Q193
Q192
Q103, 104
FM/LW/MW loop filter
Q106
Power supply
(FM)
PDI
FM IN
LW
FM
AM IN
STRQ
LCTR
RCTR
AM
MONO
X IN
X OUT
VDD
Vss
CE
DI
CL
DO
X103
LC7218
IC102
PLL FREQUENCY SYNTHESIZER
Q153
Switching tuner: on/off
Q107(Q108)
Buffer amp.
Q151(Q152)
JK201 (1/3)
LC7536
IC201
ELECTRIC VOLUME
Level shift
Latch
Shift registor
Control
M5219FPTA
IC202
BUFFER AMP
NF
BA4558FTI
IC203
BUFFER AMP
BA4558FTI
IC351
Q352, 354, 361, 362, 371
Fan motor drive
HEAD
Q201, 252 (Q202)
Q203, 251 (Q204)
Q301, 303 (Q302)
Muting drive
BU2040F-T2
IC801
SYSTEM CONTROL
T MUTE
Vss
VDD
VOL MUTE
MAIN MUTE
HP MUTE
For (GC, GN) a
Q401 (Q402)
Q451
Switching surround on/off
LA5608M-TE-L
IC603
BUS LINE DRIVE/RESET/HALT
Standard voltage
JK201 (1/3)
B. DATA
B. CLK
B. GND
M38102M5147S
IC601
SYSTEM CONTROL AND FL DRIVE
PLL DATA IN
CLK
DATA
PLL CE
B. CLK OUT
B. CLK IN
B. DATA OUT
B. DATA IN
/SD
STBI
DATA
CLK
HP SW
TOUT
RESET
AC IN
X IN
X OUT
Vss
VDD
VP
MAIN VR.b
MAIN VR.a
X601
VR601 (VOLUME)
REMOCON
RCDHC-278-E
IC602
REMOTE SENSOR
Q1601
Switching
K3 ~ K0
12G 11G 10G 9G 8G
KS3/7G ~ KS9/1G
S1 ~ S15
KEY MATRIX
S601~620
FL DISPLAY
FL601

Notes:
1) ( ) indicates Pin No. of right channel.
2)
- ━▶ : AF SIGNAL
- ⇨ : FM SIGNAL
- ➡ : AM (LW/MW) SIGNAL
- ▫▫▫▷ : FM OSC SIGNAL
- ▪▪▪▶ : AM (LW/MW) OSC SIGNAL
- ⇨ : SURROUND SP DRIVE SIGNAL For (GC, GN) areas.


BA4558FTI
IC351
FAN MOTOR
Q352, 354, 361, 362, 371
Fan motor drive
R ch
SVI3102D
IC501
POWER AMP
NF
Drive
Power
Short det.
Muting
Power on / off
Bias
SPEAKERS
M5218AL
IC301
HEADPHONES AMP
HEADPHONES
Q201, 252 (Q202)
Q203, 251 (Q204)
Q301, 303 (Q302)
Muting drive
Lch
SURROUND SPEAKERS
Rch
For (E, EB, EG) areas.
Q571, 572
Protector
VDD
VOL MUTE
MAIN MUTE
HP MUTE
SURR
DATA
CLK
PWR
For (GC, GN) areas.
LA4282
IC551
POWER AMP (SURROUND)
SURROUND SPEAKERS
Q401 (Q402)
Q451
Switching surround : on / off
Q551 SWITCHING
A
B
C
D
DATA
CLK
HP SW
TOUT
JK2011(/31
AC
CT
AC
F701
F702
PT701
RL702
RL701
Q704, 801
Relay drive
Q154, Q153
Regulator
Q701, D715
Regulator
D701~704
Q702, D716
Regulator
Q703, D714
Regulator
D705, 706
D709, 710
D708
D717
D719~721
AC IN
( ) indicates Pin No. of right channel.
AF SIGNAL
FM SIGNAL
AM (LW/MW) SIGNAL
FM OSC SIGNAL
AM (LW/MW) OSC SIGNAL
SURROUND SP DRIVE SIGNAL For (GC, GN) areas.

■ FUNCTION OF IC TERMINALS

●IC601 (M38102M5147S)

Pin No.	Terminal Name	I/O	Function
1	V_{DD}	——	Power supply (+5 V)
2	VP	——	Pull-down voltage
3	HP. SW	I	Headphone switch detection
4	AN IN	I/O	CR timer during backup
5	B.DATA OUT	O	Bus data output
6	B.CLK OUT	O	Bus clock output
7	B.DATA IN	I	Bus data input
8	B.CLK IN	I	Bus clock input
9	REAR VR. b	I	Rotary encoder input (for REAR)
10	REAR VR. a	I	Rotary encoder input (for REAR)
11	PLL DATA IN	I	Serial data input for PLL tuner
12	PLL CE	O	Serial chip enable output for PLL tuner
13	CLK	O	Clock for M50253
14	DATA	O	Data for M50253
15	CENTER VR. b	I	Rotary encoder input (for CENTER)
16	CENTER VR. a	I	Rotary encoder input (for CENTER)
17	MAIN VR. b	I	Rotary encoder input (for MAIN)
18	MAIN VR. a	I	Rotary encoder input (for MAIN)
19	T OUT	I/O	I: Starting clock adjustment O: 131.072 kHz (POWER OFF) Malfunction detection (POWER ON)
20	DATA	O	Data output for LC7536 & PLL tuner
21	CLK	O	Clock output for LC7536 & PLL tuner
22	STB1	O	Strobing for LC7536 (switched)
23	STB2	——	No use
24	/SD	I	Tuner/SD input
25	REMOCON	I	Remote control input
26	AC IN	I	Power down input
27	RESET	I	No use
28	XC IN	——	No use
29	XC OUT	——	
30	X IN	I	4.194304 oscillator
31	X OUT	O	
32	V_{SS}	——	Power supply (GND)
33	K3	I	Key input
34	K2	I	Key input
35	K1	I	Key input
36	K0	I	Key input
37	12G	O	Digit 12 & key scan (lock switch)
38	11G	O	Digit 11 (No use) & RESET
39	10G	O	Digit 10 (No use) & RESET
40	9G	O	Digit 9
41	8G	O	Digit 8
42	KS3/7G	O	Digit 7 & key scan
43	KS4/6G	O	Digit 6 & key scan
44	KS5/5G	O	Digit 5 & key scan
45	KS6/4G	O	Digit 4 & key scan
46	KS7/3G	O	Digit 3 & key scan
47	KS8/2G	O	Digit 2 & key scan
48	KS9/1G	O	Digit 1 & key scan
49 ~ 63	S1 ~ S15	O	Segment output
64	NC	——	No use

■ REPLACEMENT PARTS LIST

Notes: •Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
•The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
•Remote Control Ass'y:
Supply period for three years from termination of production.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	LA1830-H	I. C, FM/AM IF AMP. /AM OSC	
IC102	LC7218	I. C, PLL FREQ. SYNTHESIZER	
IC201	LC7536	I. C, ELECTRIC VOLUME	
IC202	M5219FP	I. C, BUFFER AMP.	
IC203	SVIBA4558F	I. C, BUFFER AMP.	
IC301	M5218L	I. C, HEADPHONE AMP.	
IC351	SVIBA4558F	I. C, SIGNAL DET.	
IC501	SVI3102D	I. C, POWER AMP.	⚠
IC551	LA4282	I. C, POWER AMP. (SURROUND)	(GC, GN)
IC601	M38102M5147S	I. C, FL DRIVE/SYSTEM CONT.	
IC602	RCDHC-278	I. C, REMOTE SENSOR	
IC603	LA5608M-TE-L	I. C, BUS LINE/HALT/RESET	
IC801	BU2040F-T2	I. C, SYSTEM CONT.	
		TRANSISTOR(S)	
Q101, 102	2SC2787L	TRANSISTOR	
Q103, 104	2SC2785FE	TRANSISTOR	
Q106	UN411FTA	TRANSISTOR	
Q107, 108	2SC3311A-Q	TRANSISTOR	
Q151, 152	2SJ40CTA	TRANSISTOR	
Q153	UN4110TA	TRANSISTOR	
Q154	KSD471ACYGTA	TRANSISTOR	
Q191-193	2SC3311A-Q	TRANSISTOR	
Q201-204	2SD1450RTA	TRANSISTOR	
Q251, 252	UN4115	TRANSISTOR	
Q301, 302	2SD1450RTA	TRANSISTOR	
Q303	UN4111	TRANSISTOR	
Q352	KSD471ACYGTA	TRANSISTOR	
Q354	2SC3311A-Q	TRANSISTOR	
Q361	KSD471ACYGTA	TRANSISTOR	
Q362	2SC3327-A	TRANSISTOR	
Q371	2SC3311A-Q	TRANSISTOR	
Q401, 402	2SK381BCDTA	TRANSISTOR	(GC, GN)
Q451	UN4110TA	TRANSISTOR	(GC, GN)
Q551	2SC3311A-Q	TRANSISTOR	(GC, GN)
Q571, 572	2SC3311A-Q	TRANSISTOR	
Q701	2SD1762EF	TRANSISTOR	
Q702	2SB1185EF	TRANSISTOR	
Q703	KSD471ACYGTA	TRANSISTOR	
Q704	2SC3311A-Q	TRANSISTOR	
Q801	UN4111	TRANSISTOR	
Q1601	2SA1309A-R	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE(S)	
D101	MA4051MTA	DIODE	
D102	MA165	DIODE	
D151, 152	1SS254TA	DIODE	
D153	MA4082MTA	DIODE	
D291	MA165	DIODE	
D351	MA165	DIODE	
D352	MA4068M	DIODE	
D361	MA4091LTA	DIODE	
D362	MA165	DIODE	
D371	MA165	DIODE	
D401, 402	MA165	DIODE	(GC, GN)
D603	1SS291TA	DIODE	
D604, 605	MA165	DIODE	
D606	MA4039MTA	DIODE	⚠
D607	MA165	DIODE	
D609-611	MA165	DIODE	
D612	MA165	DIODE	(GC)
D613	MA165	DIODE	
D616-619	MA165	DIODE	
D621	1SS291TA	DIODE	
D622	MA165	DIODE	
D624	MA165	DIODE	
D651-653	MA165	DIODE	
D701-704	RVDP300DLF	DIODE	⚠
D705, 706	1SR35200TB	DIODE	⚠
D708	1SR35200TB	DIODE	⚠
D709, 710	MA185TA	DIODE	⚠
D711	1SS254TA	DIODE	
D712, 713	MA4240H	DIODE	
D714	MA4062MTA	DIODE	
D715, 716	MA4150M	DIODE	
D717	MA4051MTA	DIODE	
D719-721	MA4091HTA	DIODE	
D1601-1603	MA165	DIODE	
		VARIABLE RESISTOR(S)	
VR601	EVQWWVF2024B	V. R, MAIN VOLUME CONTROL	
		COMPONENT COMBINATION(S)	
Z102	RLI2Z006M-T	COMPONENT COMBINATION	
Z120	RAL0006	TUNER PACK (FM FRONT END)	(E, EB, GC, GN)

Ref. No.	Part No.	Part Name & Description	Remarks
Z120	RAL0019	TUNER PACK(FM FRONT END)	(EG)
Z191	RLA6Z005M-T	COMPONENT COMBINATION	
		COIL(S)	
L101	ELESN1R0MA	COIL	
L103	ELEXTR47MA9	COIL	
L104	ELEXT100KA9	COIL	
L105, 106	RLQZB822KT-D	COIL	
L151	SLM1B10M-1M	COIL	(EG)
L191	ELESN1R0MA	COIL	
L501, 502	SLQY07G-40	COIL	
L551, 552	ELEV1R0KA	COIL	(GC, GN)
L601	ELEXT100KA9	COIL	
L701	RLQZ271M	COIL	⚠(E, EB, EG, GN)
		FILTER(S)	
CF201	RLFFETWND01M	FILTER	(E, EB, GC, GN)
CF201	RLFFETNGD01L	FILTER	(EG)
CF202	RLFFETWND01M	FILTER	(E, EB, GC, GN)
CF202	RLFFETMGD01L	FILTER	(EG)
		OSCILLATOR(S)	
X101	RSXZ456KM07M	OSCILLATOR(456KHz)	
X102	RLFDFTD03M	OSCILLATOR(10. 7MHz)	
X103	SVQ49U722-S	OSCILLATOR(7. 2MHz)	
X601	RSXA4M19S03	OSCILLATOR(4. 19MHz)	
		DISPLAY(S)	
FL601	RSL0152-F	FL DISPLAY	⚠
		FUSE(S)	
F1	XBA2C12TB0S	FUSE 250V T1. 25A	⚠(E, EB, EG, GN)
F1	XBA2C25TB0	FUSE 250V T2. 5A	⚠(GC)
F2	XBA2C12TB0	FUSE 250V T1. 25A	⚠(GC)
F701, 702	XBA2C16TB0	FUSE 250V T1. 6A	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, POWER	
S602	EVQ21405R	SW, TIMER REC	
S603	EVQ21405R	SW, TIMER PLAY	
S604	EVQ21405R	SW, CLOCK/TIMER	
S605	EVQ21405R	SW, SELECT(DOWN)	
S606	EVQ21405R	SW, SELECT(UP)	
S607	EVQ21405R	SW, SET	
S608	EVQ21405R	SW, MEMORY	
S609	EVQ21405R	SW, PRESET(DOWN)	

Ref. No.	Part No.	Part Name & Description	Remarks
S610	EVQ21405R	SW, PRESET(UP)	
S611	EVQ21405R	SW, BAND	
S612	EVQ21405R	SW, TUNING(DOWN)	
S613	EVQ21405R	SW, TUNING(UP)	
S614	EVQ21405R	SW, TUNER	
S615	EVQ21405R	SW, CD	
S616	EVQ21405R	SW, TAPE	
S617	EVQ21405R	SW, PHONO	
S618	EVQ21405R	SW, DAT	
S619	EVQ21405R	SW, VDP	
S620	EVQ21405R	SW, VCR	
S701	ESE37263	SW, VOLTAGE SELECTOR	⚠(GC)
		JACK(S)	
J703	RWJ1808110XX	FLAT CABLE(8P)	
J703-1, 2	RJS1A6604	SOCKET(4P)	
J704A	RJT057W004-1	CONNECTOR(4P)	
J704B	RJU057W004	SOCKET(4P)	
CN101, 102	RJU063W07T	SOCKET(7P)	
CN103	RJU057W004	SOCKET(4P)	
CN301	RJU057W004	SOCKET(4P)	
CN501	RJU057W007	SOCKET(7P)	
CN601-603	RJT003K008-1	CONNECTOR(8P)	
CN701	RJS1A1101T1	SOCKET(1P)	
CN701A	RJU057W010	SOCKET(10P)	
CN702	RJS1A1101T1	SOCKET(1P)	
CN702A	RJU057W007	SOCKET(7P)	
CN703-708	RJS1A1101T1	SOCKET(1P)	
CP101, 102	RJT063W07T	CONNECTOR(7P)	
CP103	RJT057W004-1	CONNECTOR(4P)	
CP301	RJT057W004-1	CONNECTOR(4P)	
CP501	RJT057W007-1	CONNECTOR(7P)	
CP601-603	RJU003K008M1	SOCKET(8P)	
CP701	RJT057W010-1	CONNECTOR(10P)	
CP702	RJT057W007-1	CONNECTOR(7P)	
		EARTH TERMINAL(S)	
E501	SNE1004-1	GND PLATE	
E701	SNE1004-1	GND PLATE	
		FUSE HOLDER(S)	
FC1-6	EYF52BC	FUSE HOLDER	⚠
FC7, 8	EYF52BC	FUSE HOLDER	⚠(GC)
		RELAY(S)	
RL701, 702	RSY0013M-0	RELAY	⚠
		HOLDER(S)	

Ref. No.	Part No.	Part Name & Description	Remarks
SH601	RMN0194	FL HOLDER	
		TRANSFORMER(S)	
PT701	RTP1N5B015	POWER TRANSFORMER	⚠(E, EB, EG, GN)
PT701	RTP1N5G004	POWER TRANSFORMER	⚠(GC)

Ref. No.	Part No.	Part Name & Description	Remarks
		JACK(S)	
JK101	RJH4202M	ANTENNA TERMINAL	(E, EB, EG)
JK101	RJH4405-1M	ANTENNA TERMINAL	(GC, GN)
JK201	RJT065K15	CONNECTOR(15P)	
JK301	RJJD7S2XA-C	HEADPHONES JACK	
JK351	SJT3213	CONNECTOR(2P)	
JK501	RJR0054M	SPEAKER TERMINAL	
JK502	SJF3068-6N	SURROUND SPEAKER TERMINAL	(E, EB, EG)
JK502	SJF3068N	SURROUND SPEAKER TERMINAL	(GC, GN)
JK701	SJS9236	AC INLET	⚠(E, EB, EG, GC)
JK701	SJSD16	AC INLET	⚠(GN)
JK702	SJS702-1	CONNECTOR(7P)	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R103	ERDS2TJ271	1/4W 270 E, EB, GC, GN
R103	ERDS2TJ330	1/4W 33 EG
R104	ERDS2TJ822	1/4W 8.2K
R105	ERDS2TJ471	1/4W 470
R106	ERDS2TJ474	1/4W 470K
R107	ERDS2TJ331	1/4W 330
R108	ERDS2TJ474	1/4W 470K
R109	ERDS2TJ331	1/4W 330
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K
R113	ERDS2TJ103	1/4W 10K
R114	ERDS2TJ562	1/4W 5.6K
R115	ERDS2TJ561	1/4W 560
R116	ERDS2TJ102	1/4W 1K
R117	ERDS2TJ682T	1/4W 6.8K
R118	ERDS2TJ562	1/4W 5.6K
R119	ERDS2TJ392T	1/4W 3.9K E, EB, GC, GN
R119	ERDS2TJ822	1/4W 8.2K EG
R120	ERDS2TJ473	1/4W 47K
R121	ERDS2TJ332	1/4W 3.3K
R122	ERDS2TJ272T	1/4W 2.7K
R124	ERDS2TJ391	1/4W 390
R125, 126	ERDS2TJ472	1/4W 4.7K
R127	ERDS2TJ103	1/4W 10K
R128	ERDS2TJ820	1/4W 82

Ref. No.	Part No.	Values & Remarks
R129	ERDS2TJ473	1/4W 47K
R130, 131	ERDS2TJ102	1/4W 1K
R132	ERDS2TJ103	1/4W 10K
R133-137	ERDS2TJ102	1/4W 1K
R138	ERDS2TJ103	1/4W 10K
R139, 140	ERDS2TJ272T	1/4W 2.7K
R141, 142	ERDS2TJ103	1/4W 10K
R143, 144	ERDS2TJ222	1/4W 2.2K
R145, 146	ERDS2TJ102	1/4W 1K E, EB, GC, GN
R145, 146	ERDS2TJ821	1/4W 820 EG
R147, 148	ERDS2TJ474	1/4W 470K
R149	ERDS2TJ680T	1/4W 68
R151-154	ERDS2TJ104	1/4W 100K
R155	ERDS2TJ102	1/4W 1K
R156	ERDS2TJ105T	1/4W 1M
R157, 158	ERDS2TJ102	1/4W 1K
R159	ERDS2TJ100	1/4W 10
R160, 161	ERDS2TJ331	1/4W 330
R162	ERDS2TJ152	1/4W 1.5K
R163	ERDS2TJ331	1/4W 330
R171, 172	ERDS2TJ102	1/4W 1K
R173	ERDS2TJ471	1/4W 470
R175	ERDS2TJ102	1/4W 1K
R176	ERDS2TJ391	1/4W 390
R191	ERDS2TJ103	1/4W 10K
R192	ERDS2TJ122	1/4W 1.2K
R193	ERDS2TJ182	1/4W 1.8K
R194	ERDS2TJ122	1/4W 1.2K

Ref. No.	Part No.	Values & Remarks
R195	ERDS2TJ223	1/4W 22K
R201, 202	ERDS2TJ222	1/4W 2.2K
R203, 204	ERDAS3G223T	1/4W 22K
R205, 206	ERDS2TJ104	1/4W 100K
R207, 208	ERDAS3G562T	1/4W 5.6K
R209, 210	ERDAS3G332T	1/4W 3.3K
R211, 212	ERDS2TJ222	1/4W 2.2K
R213, 214	ERDS2TJ204	1/4W 200K
R215, 216	ERDS2TJ474	1/4W 470K
R217, 218	ERDS2TJ102	1/4W 1K
R219, 220	ERDS2TJ331	1/4W 330
R221, 222	ERDS2TJ105T	1/4W 1M
R223, 224	ERDS2TJ332	1/4W 3.3K E, EB, EG
R223, 224	ERDS2TJ222	1/4W 2.2K GC, GN
R225, 226	ERDS2TJ104	1/4W 100K
R227, 228	ERDS2TJ332	1/4W 3.3K
R251, 252	ERDS2TJ102	1/4W 1K
R253, 254	ERDS2EJ121	1/4W 120
R255	ERDS2TJ154	1/4W 150K
R256	ERDS2TJ105T	1/4W 1M
R257	ERDS2TJ334	1/4W 330K
R258	ERDS2TJ105T	1/4W 1M
R259	ERDS2TJ561	1/4W 560
R260	ERDS2TJ392T	1/4W 3.9K
R281	ERDS2TJ102	1/4W 1K
R282	ERDS2TJ561	1/4W 560
R291, 292	ERDS2TJ104	1/4W 100K
R293, 294	ERDAS3G123T	1/4W 12K

Ref. No.	Part No.	Values & Remarks
R295, 296	ERDAS3G622T	1/4W 6.2K
R301, 302	ERDS2TJ562	1/4W 5.6K
R303-306	ERDS2TJ563	1/4W 56K
R307, 308	ERDS2TJ562	1/4W 5.6K
R309-312	ERDS2EJ121	1/4W 120
R313, 314	ERDS2TJ102	1/4W 1K
R315	ERDS2TJ334	1/4W 330K
R316	ERDS2TJ105T	1/4W 1M
R351	ERDS2TJ563	1/4W 56K
R352	ERDS2TJ184T	1/4W 180K
R353	ERDS2TJ274	1/4W 270K
R354	ERDS2TJ102	1/4W 1K
R355	ERDS2TJ103	1/4W 10K
R356	ERDS2TJ332	1/4W 3.3K
R357	ERDS1FVJ390T	1/2W 39 ⚠
R358	ERDS2TJ220T	1/4W 22
R361	ERDS2TJ474	1/4W 470K
R362	ERDS2TJ102	1/4W 1K
R371	ERDS2TJ103	1/4W 10K
R372	ERDS2TJ823T	1/4W 82K
R373	ERDS2TJ222	1/4W 2.2K
R374	ERDS2TJ823T	1/4W 82K
R375	ERDS2TJ153	1/4W 15K
R398	ERDS2TJ332	1/4W 3.3K
R399	ERDS2TJ154	1/4W 150K
R457	ERDS2TJ105T	1/4W 1M GC, GN
R459	ERDS2TJ272T	1/4W 2.7K GC, GN
R471, 472	ERDS2TJ121	1/4W 120 GC, GN
R501, 502	ERDS2TJ222	1/4W 2.2K
R503-506	ERDS2TJ563	1/4W 56K
R507, 508	ERDS2TJ272T	1/4W 2.7K
R509, 510	ERDS2TJ102	1/4W 1K
R511	ERDS2TJ334	1/4W 330K
R512	ERDS2TJ154	1/4W 150K ⚠
R513	ERDS2TJ684	1/4W 680K ⚠
R514	ERD25FJ470	1/4W 47 ⚠
R515, 516	ERDS1FVJ100T	1/2W 10 ⚠
R517, 518	ERD25FVJ100T	1/4W 10 ⚠
R551, 552	ERDS2TJ223	1/4W 22K GC, GN
R553, 554	ERDS2TJ182	1/4W 1.8K GC, GN
R555, 556	ERDS2TJ102	1/4W 1K GC, GN
R557, 558	ERDS1FVJ4R7T	1/2W 4.7 ⚠GC, GN
R559	ERDS2TJ271	1/4W 270 GC, GN
R560, 561	ERDS2TJ103	1/4W 10K GC, GN
R571	ERDS2TJ823T	1/4W 82K
R572	ERDS2TJ124T	1/4W 120K
R573	ERDS2TJ563	1/4W 56K
R611	ERDS2TJ470	1/4W 47
R613, 614	ERDS2TJ101	1/4W 100 ⚠
R615	ERDS2TJ2R2T	1/4W 2.2 ⚠
R616-619	ERDS2TJ104	1/4W 100K
R620	ERDS2TJ221	1/4W 220

Ref. No.	Part No.	Values & Remarks
R621	ERDS2TJ104	1/4W 100K
R622	ERDS2TJ102	1/4W 1K
R623	ERDS2TJ223	1/4W 22K
R624	ERDS2TJ393	1/4W 39K
R625	ERDS2TJ564	1/4W 560K
R626-629	ERDS2TJ223	1/4W 22K
R630, 631	ERDS2TJ332	1/4W 3.3K
R632	ERDS2TJ103	1/4W 10K
R634	ERDS2TJ223	1/4W 22K
R635	ERDS2TJ224T	1/4W 220K
R636	ERDS2TJ104	1/4W 100K
R637	ERDS2TJ102	1/4W 1K
R639	ERDS2TJ560T	1/4W 56
R660-665	ERDS2TJ102	1/4W 1K
R697	ERDS2TJ102	1/4W 1K
R698	ERDS2TJ332	1/4W 3.3K
R699	ERDS2TJ102	1/4W 1K
R701, 702	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R703, 704	ERDS2TJ562	1/4W 5.6K
R705, 706	ERG1SJ471E	1W 470
R707	ERDS2TJ680T	1/4W 68
R708	ERDS2TJ562	1/4W 5.6K
R709, 710	ERG1SJ391E	1W 390
R711, 712	ERG1SJ331E	1W 330
R713	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R714	ERG1SJ681E	1W 680
R715	ERDS2TJ153	1/4W 15K
R716	ERDS2TJ102	1/4W 1K
R717	ERDS2TJ103	1/4W 10K
R799	ERDS2TJ103	1/4W 10K
R801	ERDS2TJ102	1/4W 1K
R803	ERDS2TJ103	1/4W 10K
R805	ERDS2TJ562	1/4W 5.6K
R806	ERDS2TJ392T	1/4W 3.9K GC, GN
R808	ERDS2TJ392T	1/4W 3.9K
R809, 810	ERDS2TJ272T	1/4W 2.7K
R811	ERDS2TJ221	1/4W 220
R812	ERDS2TJ332	1/4W 3.3K
R820-822	ERDS2TJ272T	1/4W 2.7K
R1601	ERDS2TJ223	1/4W 22K
R1602	ERDS2TJ473	1/4W 47K
R1603	ERDS2TJ223	1/4W 22K
R1604, 1605	ERDS2TJ102	1/4W 1K
		CAPACITORS
C101	ECBT1C103NS5	16V 0.01U
C103	ECBT1C103NS5	16V 0.01U
C104, 105	ECBT1H102KB5	50V 1000P
C106	ECBT1C103NS5	16V 0.01U
C107	ECBT1H473ZF5	50V 0.047U
C108	ECBT1H100JC5	50V 10P

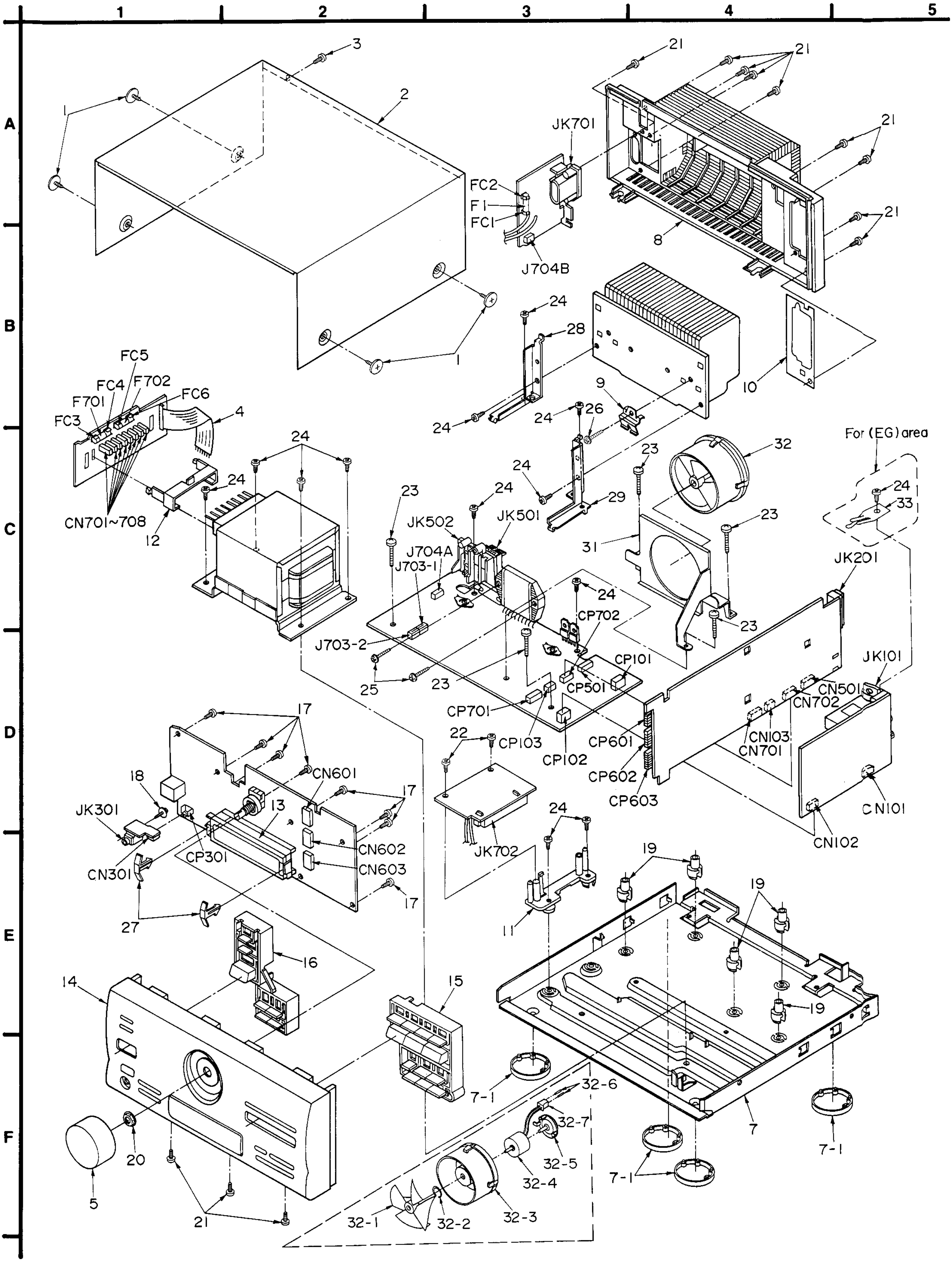
Ref. No.	Part No.	Values & Remarks
C109, 110	ECBT1C103NS5	16V 0.01U
C111	ECEA1EKA4R7B	25V 4.7U
C112	ECBT1C103NS5	16V 0.01U
C113	ECBT1H102KB5	50V 1000P
C114	ECEA1HKA3R3B	50V 3.3U
C115	ECEA1CKA100B	16V 10U
C116	ECBT1C822MS5	16V 8200P
C117	ECQB1H821JF3	50V 820P E, EB, GC, GN
C117	ECQP2A221JZT	100V 220P EG
C118, 119	ECFR1E103KR	25V 0.01U
C120, 121	ECEA1HKA010B	50V 1U
C122	ECEA1HKA2R2B	50V 2.2U
C123	ECEA1HKA010B	50V 1U
C124	ECBT1H102KB5	50V 1000P
C125	ECBT1H150JC5	50V 15P
C126	ECBT1H473ZF5	50V 0.047U
C127	ECEA1CKA220B	16V 22U
C128	ECBT1C103NS5	16V 0.01U
C129, 130	ECEA0JKA101B	6.3V 100U
C131	ECBT1C103NS5	16V 0.01U
C132	ECBT1H102KB5	50V 1000P
C133	ECBT1H150JC5	50V 15P
C134	ECBT1H180JC5	50V 18P
C135, 136	ECBT1C822MS5	16V 8200P
C137, 138	ECBT1H271KB5	50V 270P
C139, 140	ECFR1E562KR	25V 5600P E, EB, GC, GN
C139, 140	ECFR1E822KR	25V 8200P EG
C141-144	ECEA1HKA010B	50V 1U
C145	ECBT1H220JC5	50V 22P
C146	ECBT1H331KB5	50V 330P
C147	ECBT1H102KB5	50V 1000P
C148	ECBT1C103NS5	16V 0.01U
C149	ECBT1H104ZF5	50V 0.1U
C151	ECEA1HKA010B	50V 1U
C152	ECKR1H103ZF5	50V 0.01U
C153	ECEA1AKA101B	10V 100U
C155, 156	ECBT1E103ZF	25V 0.01U
C157, 158	ECBT1H101KB5	50V 100P
C171	ECBT1C103NS5	16V 0.01U
C172	ECBT1H331KB5	50V 330P
C173	ECEA1CKA220B	16V 22U
C174	ECEA1CKA100B	16V 10U E, EB, GC, GN
C174	ECEA1CKA101B	16V 100U EG
C181	ECBT1H471KB5	50V 470P EG
C201, 202	ECBT1H101KB5	50V 100P
C203, 204	ECQB1H393JF3	50V 0.039U
C205, 206	ECQB1H333JF3	50V 0.033U
C207, 208	ECBT1H471KB5	50V 470P
C209, 210	ECEA1HKA3R3B	50V 3.3U
C211, 212	ECBT1H101KB5	50V 100P
C213, 214	ECQB1H822JF3	50V 8200P E, EB, EG
C213, 214	ECQB1H103JF3	50V 0.01U GC, GN

Ref. No.	Part No.	Values & Remarks
C215, 216	ECBT1H101KB5	50V 100P
C217, 218	ECBT1H151KB5	50V 150P
C219, 220	ECEA1CKA100B	16V 10U
C221, 222	ECQB1H333JF3	50V 0.033U
C251	ECEA0JKA221B	6.3V 220U
C252	ECEA1CKA100B	16V 10U
C281-287	ECBT1E103ZF	25V 0.01U
C291, 292	ECQB1H223JF3	50V 0.022U
C293, 294	ECBT1H101KB5	50V 100P
C301, 302	ECEA1HKA3R3B	50V 3.3U
C303, 304	ECBT1H101KB5	50V 100P
C305, 306	ECBT1H330J5	50V 33P
C307, 308	ECEA1HKA3R3B	50V 3.3U
C309	ECEA1HKA010B	50V 1U
C351	ECEA1CKA100B	16V 10U
C352	ECBT1E223ZF	25V 0.022U
C353	ECEA1HKA2R2B	50V 2.2U
C361	ECEA1CN470SB	16V 47U ⚠
C371	ECEA0JKA221B	6.3V 220U
C381, 382	ECBT1E103ZF	25V 0.01U
C397, 398	ECBT1E103ZF	25V 0.01U
C451	ECEA1CKA100B	16V 10U GC, GN
C501, 502	ECA1HAP3R3B	50V 3.3U
C503, 504	ECBT1H331KB5	50V 330P
C505, 506	ECBT1H6R8K5	50V 6.8P
C507, 508	ECBT1H102KB5	50V 1000P
C509, 510	ECA1HAP3R3B	50V 3.3U
C511, 512	ECBT1H821KB5	50V 820P
C513	ECA1HAP330B	50V 33U
C514	ECA2AAP100B	100V 10U
C515, 516	ECBT1H104ZF5	50V 0.1U
C551	ECBT1C472KR5	16V 4700P GC, GN
C552	ECBT1C222KR5	16V 2200P GC, GN
C553, 554	ECEA1HKA3R3B	50V 3.3U GC, GN
C555	ECEA1HKA2R2B	50V 2.2U GC, GN
C556	ECEA1HKA010B	50V 1U GC, GN
C557, 558	ECA1VM101B	35V 100U GC, GN
C559, 560	ECQV1H473JM3	50V 0.047U GC, GN
C561	ECA1EM221B	25V 220U GC, GN
C562	ECEA1HKN010B	50V 1U ⚠GC, GN
C563	ECQV1H104JM3	50V 0.1U GC, GN
C571	ECEA0JKA101B	6.3V 100U
C599	ECBT1C103MS5	16V 0.01U E, EB, EG
C601	ECEA0JU102	6.3V 1000U
C602	ECBT1E223ZF	25V 0.022U
C603	ECEA1CKS100L	16V 10U
C604	ECEA1VKA330B	35V 33U ⚠
C605	ECEA1VKA330B	35V 33U
C607	ECEA1HKS010	50V 1U
C608	ECEA1HKAR22B	50V 0.22U
C609, 610	ECBT1E103ZF	25V 0.01U
C611	ECBT1H102KB5	50V 1000P
C612	ECBT1E223ZF	25V 0.022U
C620	ECEA1HKS010	50V 1U ⚠
C621, 622	ECBT1H200JC5	50V 20P
C698, 699	ECBT1E103ZF	25V 0.01U
C701, 702	ECA1HM332B	50V 3300U E, EB, EG
C701, 702	ECEA45V472YB	45V 4700U GC, GN
C703, 704	ECEA1CKA330B	16V 33U
C705, 706	ECKR1H103ZF5	50V 0.01U
C707	ECA1HM221B	50V 220U
C708	ECEA1CKA100B	16V 10U
C709	ECBT1E103ZF	25V 0.01U
C710	ECA1HAP330B	50V 33U
C711	ECQE1104KF3	100V 0.1U ⚠
C712	ECBT1E223ZF	25V 0.022U
C714, 715	ECKR1H103ZF5	50V 0.01U ⚠
C801, 802	ECBT1H470J5	50V 47P
C803	ECBT1H104ZF5	50V 0.1U
C810	ECBT1H470J5	50V 47P
C811	ECBT1E103ZF	25V 0.01U
C821, 822	ECBT1H220J5	50V 22P
C905, 906	ECBT1H101KB5	50V 100P
C907, 908	ECBT1E223ZF	25V 0.022U
C911	ECKR1H102ZF5	50V 1000P ⚠
C1101, 1102	ECBT1E223ZF	25V 0.022U
C1103, 1104	ECBT1H102KB5	50V 1000P E, EB, EG
C1105, 1106	ECBT1H102KB5	50V 1000P
C1107, 1108	ECBT1E223ZF	25V 0.022U GC, GN
C1111	ECBT1H102KB5	50V 1000P GC, GN

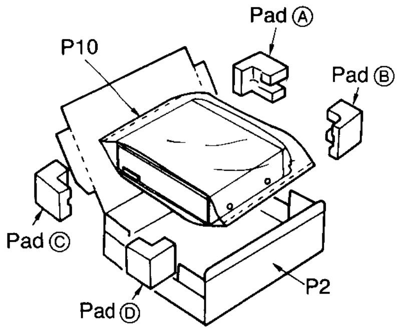
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0202A-1K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	RWJ1808110XX	FLAT CABLE (8P)	
5	RGW0157-K	KNOB, MAIN VOLUME	
7	RFKJACH550PK	BOTTOM BOARD ASS'Y	(E, EB, EG, GN)
7	RFKJACH550GC	BOTTOM BOARD ASS'Y	(GC)
7-1	RKA0055-N	FOOT	
8	RFKHACH750EK	REAR GRILL ASS'Y	(E)
8	RFKHACH750EB	REAR GRILL ASS'Y	(EB)
8	RFKHACH750EG	REAR GRILL ASS'Y	(EG)
8	RFKHACH750GC	REAR GRILL ASS'Y	(GC)
8	RFKHACH750GN	REAR GRILL ASS'Y	(GN)
9	RMC0158	TRANSISTOR HOLDER	
10	RMC0182	EARTH PLATE	
11	RMN0190	HOLDER (A)	
12	RMN0191-1	HOLDER (B)	
13	RMN0194	FL HOLDER	
14	RFKGACH750EK	FRONT PANEL ASS'Y	
15	RGU0796-K	BUTTON, INPUT SELECTOR etc.	
16	RGU0797-K	BUTTON, POWER etc	
17	XTBS26+8J	SCREW	
18	XTWS3+10T	SCREW	
19	SHE187-2	P.C.B. SPACER	
20	SNE4021-1	NUT	
21	XTBS3+8JFZ1	SCREW	
22	XTB3+12JFZ	SCREW	
23	XTB3+20JFZ	SCREW	
24	XTB3+8JFZ	SCREW	
25	XTW3+15T	SCREW	
26	XTW3+8T	SCREW	
27	RMN0195	FL SPACER	
28	RMQ0260	HOLDER (L)	
29	RMQ0261	HOLDER (R)	
31	RMN0215	FAN ANGLE	
32	SYE1128-2	FAN ASS'Y	
32-1	SHE232	FAN	
32-2	SUS271	SPRING	
32-3	SHE233-1	FAN CASE	
32-4	MDN-4RB4MRC	MOTOR	
32-5	SHE234	CAP	
32-6	SJT783	TERMINAL	
32-7	SJS5215	CONNECTOR (2P)	
33	RMC0197	EARTH PLATE	(EG)

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG1410	PACKING CASE (SYSTEM)	(E, EG)
P1	RPG1411	PACKING CASE (SYSTEM)	(EB)
P1	RPG1454	PACKING CASE (SYSTEM)	(GC)
P1	RPG1412	PACKING CASE (SYSTEM)	(GN)
P2	RPG1314	PACKING CASE (CD/PROCESSOR)	
P3	RPG1312	PACKING CASE (AMPLIFIER)	
P4	RPG1313	PACKING CASE (DECK)	
P5	RPN0627	PAD (CD/PROCESSOR)	
P6	RPN0625	PAD (AMPLIFIER)	
P7	RPN0626	PAD (DECK)	
P8	RPQF0047	ACCESSORY BOX	
P9	RPQ0244	SPACER	
P10	XZB45X50A01Z	PROTECTION COVER	
P11	XZB22X20C03	PROTECTION COVER	
		ACCESSORIES	
A1	RAK-SC709WH	REMOTE CONTROL TRANSMITTER	
A1-1	RKK0020-K	BATTERY COVER	
A2	RFKSACH950EK	INSTRUCTIONS MANUAL	(E)
A2	RFKSACH950EB	INSTRUCTIONS MANUAL	(EB)
A2	RFKSACH950EG	INSTRUCTIONS MANUAL	(EG)
A2	RFKSACH950GC	INSTRUCTIONS MANUAL	(GC)
A2	RFKSACH950GN	INSTRUCTIONS MANUAL	(GN)
A3	RQA0013	WARRANTY CARD	(E, EB, EG)
A3	RQX7433ZA	WARRANTY CARD	(GN)
A4	RQCB0169	SERVICE CENTER LIST	
A5	REX0462	FLAT CABLE (15P)	
A6	RJA0019-2K	AC POWER SUPPLY CORD	⚠(E, EG, GC)
A6	VJA0733	AC POWER SUPPLY CORD	⚠(EB)
A6	SJA173	AC POWER SUPPLY CORD	⚠(GN)
A7	RSA0007	FM INDOOR ANTENNA	(E, EB, EG)
A7	RSA0006	FM INDOOR ANTENNA	(GC, GN)
A8	SPB1163T	LW/MW LOOP ANTENNA	
A8-1	SMA233-1M	ANTENNA HOLDER	
A8-2	XTN3+10AFZ	SCREW	
A9	SWXS257M	SPEAKER CORD	
A10	RJL1P001B25	SURROUND SPEAKER CORD	(GC, GN)
A11	SJP9009	ATTACHMENT PLUG	⚠(EB)
A12	SJP5213-2	POWER PLUG ADAPTOR	⚠(GC)

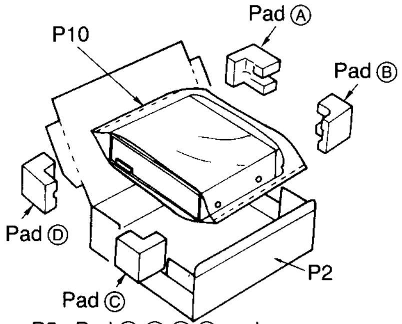
■ CABINET PARTS LOCATION


1
2
3
4
5
A
B
C
D
E
F
3
2
1
21
21
21
21
JK701
FC2
F1
FC1
J704B
8
10
24
28
1
FC5
FC4
F702
FC6
F701
FC3
4
CN701~708
12
24
24
9
24
26
24
29
24
23
32
For (EG) area
24
33
23
31
23
JK502
J704A
J703-1
JK501
24
CP702
J703-2
25
23
CP101
CP501
JK201
JK101
CN501
CN702
CP701
CP103
CP102
CP601
CP602
CP603
CN103
CN701
CN101
CN102
17
18
JK301
CN601
13
CP301
CN301
CN602
CN603
27
22
JK702
24
11
19
19
19
16
14
15
7-1
7
7-1
7-1
32-6
32-7
32-5
32-4
32-3
32-2
32-1
5
20
21

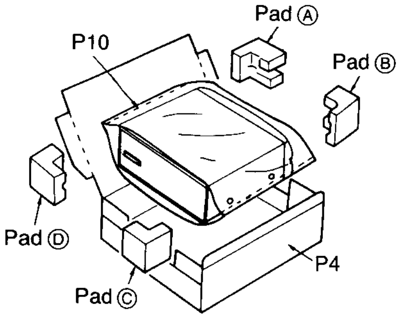
■ PACKAGING


Pad Ⓐ
P10
Pad Ⓑ
Pad Ⓒ
P2
Pad Ⓓ

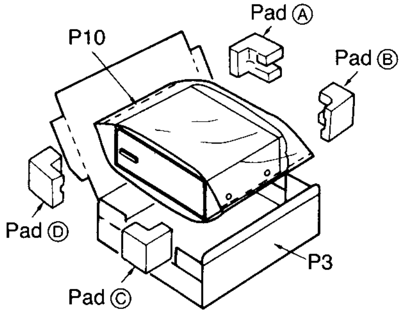
P5: Pad Ⓐ Ⓑ Ⓒ Ⓓ ass'y
(SL-CH750: Compact disc player)


Pad Ⓐ
P10
Pad Ⓑ
Pad Ⓓ
P2
Pad Ⓒ

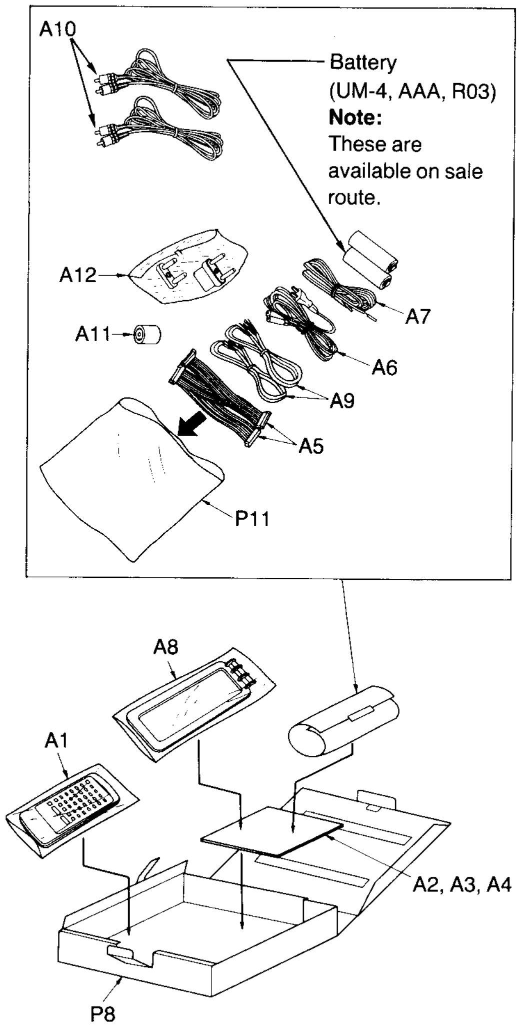
P5: Pad Ⓐ Ⓑ Ⓒ Ⓓ ass'y
(SH-CH750: Sound processor)


Pad Ⓐ
P10
Pad Ⓑ
Pad Ⓓ
P4
Pad Ⓒ

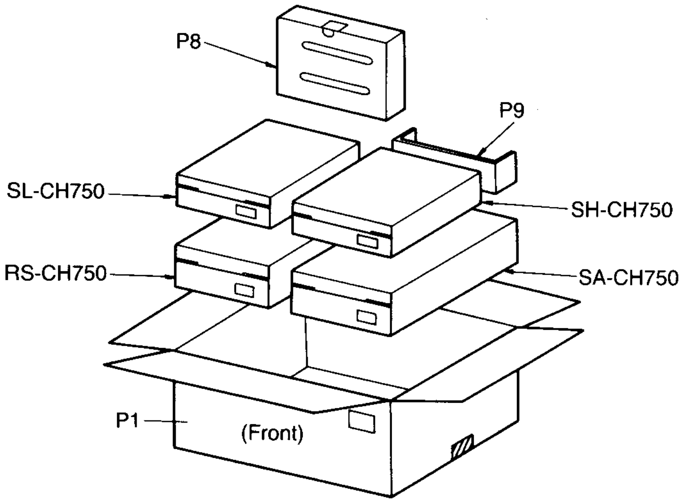
P7: Pad Ⓐ Ⓑ Ⓒ Ⓓ ass'y
(RS-CH750: Cassette deck)


Pad Ⓐ
P10
Pad Ⓑ
Pad Ⓓ
P3
Pad Ⓒ

P6: Pad Ⓐ Ⓑ Ⓒ Ⓓ ass'y
(SA-CH750: Tuner amplifier)


A10
A12
A11
A7
A6
A9
A5
P11
A8
A1
A2, A3, A4
P8

Battery
(UM-4, AAA, R03)
Note:
These are available on sale route.


P8
P9
SL-CH750
SH-CH750
RS-CH750
SA-CH750
P1
(Front)

ORDER NO. AD9212396C3

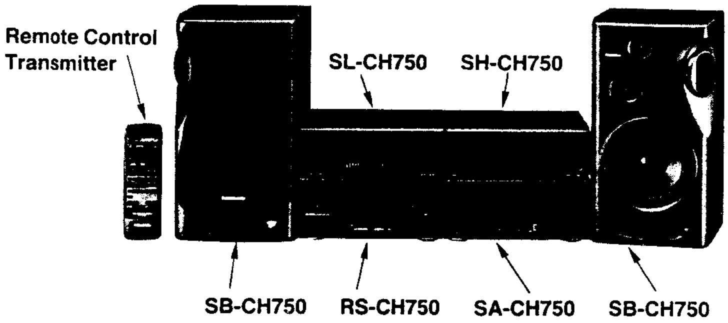
6711

Service Manual

Speaker System

SB-CH750

3-Way/Surround 4 Speakers System



Colour

(K) .... Black Type	

Area

Suffix for Model No.	Area	Colour
(GC)	Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH750

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

SPECIFICATIONS

Type	3 way/surround, 4 speakers, bass-reflex
Speaker(s)	Woofer 17 cm cone type Midrange 2.5 cm dome type Tweeter dome type Surround 7 cm cone type
Impedance	
MAIN	6Ω
SURROUND	8Ω
Input power	
MAIN	120 W (music), 60 W (DIN)
SURROUND	10 W (music), 5 W (DIN)
Output sound pressure level	86 dB/W (1.0 m)
Cross over frequency	1.8 kHz, 6 kHz
Frequency range	33 Hz–22 kHz (−16 dB)

■ **General**

Dimensions (W×H×D)	240×416×293 mm
Weight	5.5 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.

NOTES:

Refer to the service manual for Model No. SA-CH750 (Order No. AD9211379C8) for information on "ACCESSORIES", "STACKING THE COMPONENTS" and "CONNECTIONS".

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH750	SH-CH750	SA-CH750	SL-CH750	RS-CH750	SB-CH750

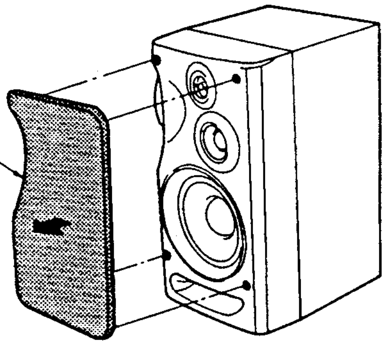
Technics

6711

■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1 **Removal of the Speaker Net**

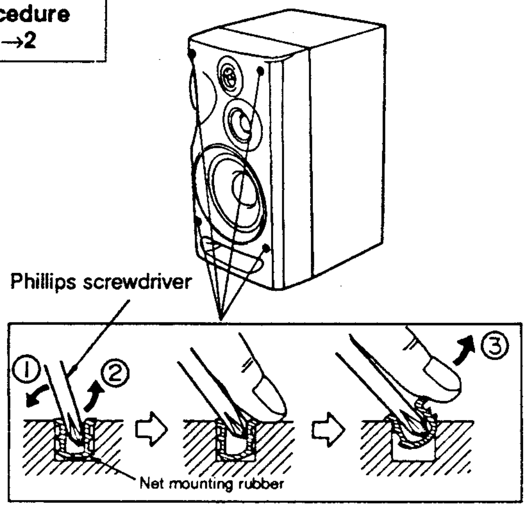
Procedure 1


Speaker net

- Remove the speaker net in the direction of arrow.

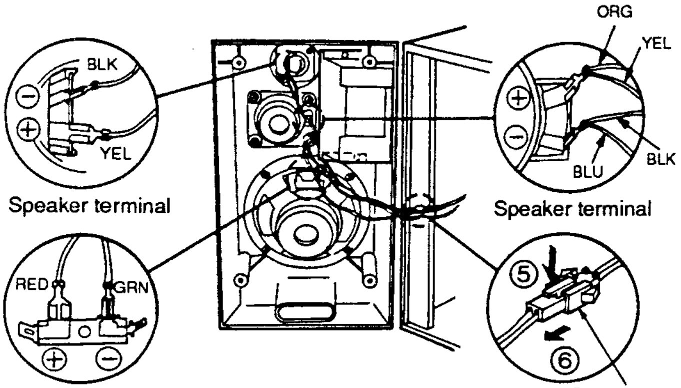
Ref. No. 2 **Removal of the Front Panel Ass'y**

Procedure 1→2

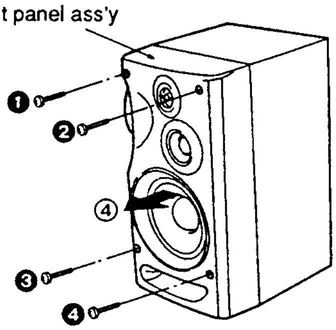

Phillips screwdriver
①
②
③
Net mounting rubber

1. Insert a phillips screwdriver or similar tool into the net mounting rubber, push in slightly in the direction of arrow ① to avoid scratching the front panel and lift in the direction of arrow ②.
2. After lifting the net mounting rubber, grasp it with your finger and remove in the direction of arrow ③.

Note
BLK : Black, YEL : Yellow, ORG : Orange, BLU : Blue, GRN : Green


BLK
YEL
⊖
⊕
Speaker terminal
ORG
YEL
BLU
BLK
Speaker terminal
RED
GRN
⊕
⊖
Speaker terminal
⑤
⑥
Connector

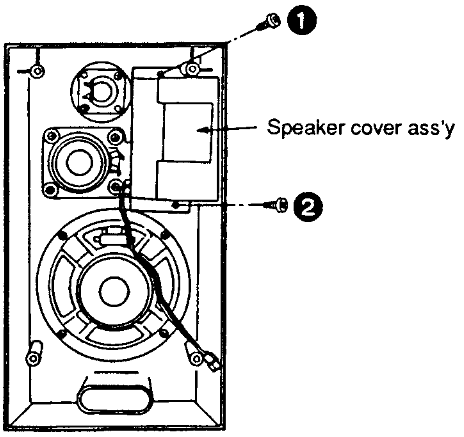
5. Detach the 6 speaker terminals from the speaker.
6. After pushing in the direction of arrow ⑤, disconnect the connector in the direction of arrow ⑥.


Front panel ass'y
❶
❷
❸
❹
④

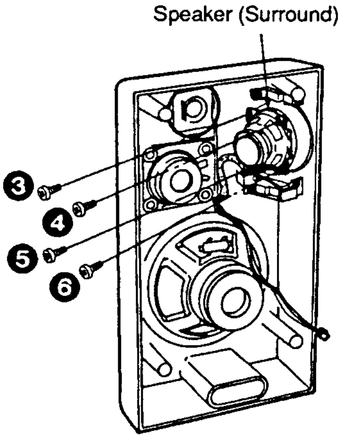
3. Remove the 4 screws (❶~❹).
4. Remove the front panel ass'y in the direction of arrow ④.

Ref. No. 3 **Removal of the Speaker (Surround)**

Procedure 1→2→3


❶
Speaker cover ass'y
❷

1. Remove the 2 screws (❶, ❷).
2. Remove the speaker cover ass'y.

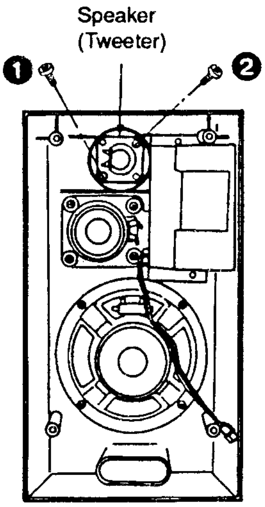

Speaker (Surround)
❸
❹
❺
❻

3. Remove the 4 screws (❸~❻).

Ref. No. 4

Removal of the Speaker (Tweeter)

Procedure 1→2→4

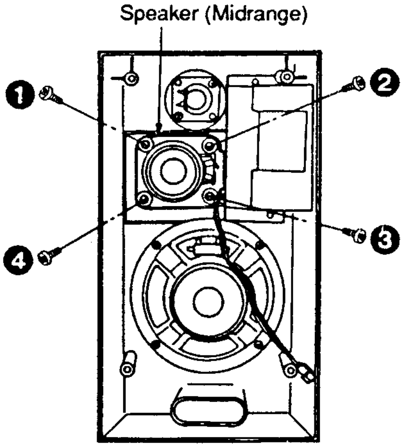

Speaker
(Tweeter)
❶
❷

- Remove the 2 screws (❶, ❷).

Ref. No. 5

Removal of the Speaker (Midrange)

Procedure 1→2→5

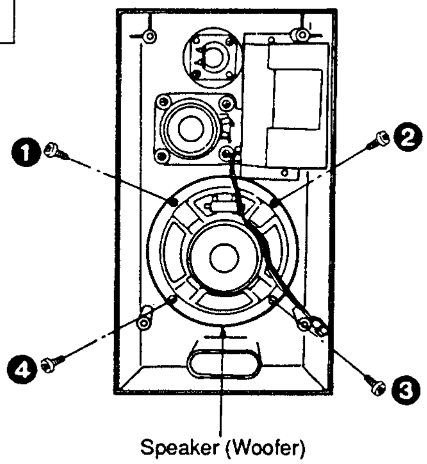

Speaker (Midrange)
❶
❷
❸
❹

- Remove the 4 screws (❶~❹).

Ref. No. 6

Removal of the Speaker (Woofer)

Procedure 1→2→6

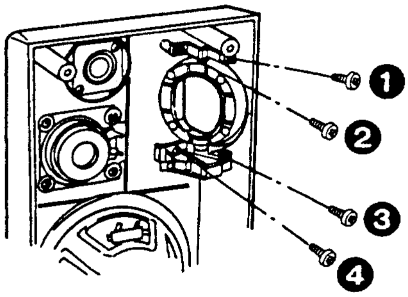

❶
❷
❸
❹
Speaker (Woofer)

- Remove the 4 screws (❶~❹).

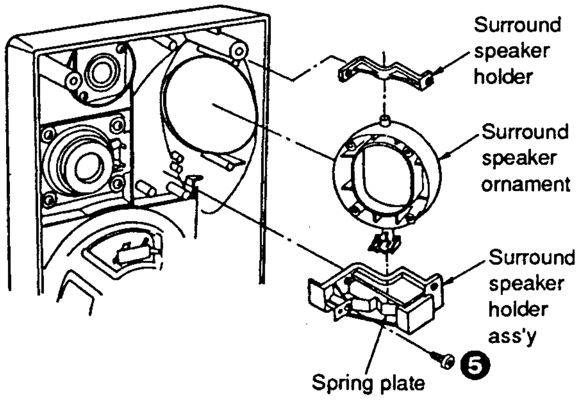
Ref. No. 7

Removal of the Surround Speaker Ornament

Procedure 1→2→3→7



1. Remove the 4 screws (❶~❹).

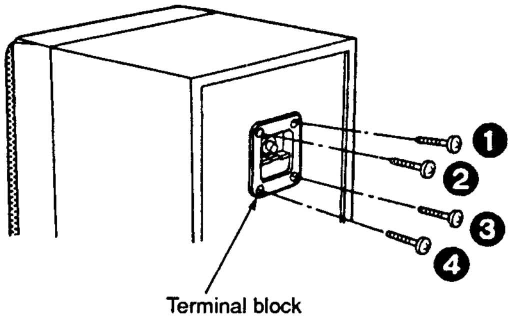

Surround speaker holder
Surround speaker ornament
Surround speaker holder ass'y
Spring plate
❺

2. Remove the surround speaker holder and the surround speaker holder ass'y.
3. Remove the screw ❺ and the spring plate.

Ref. No. 8

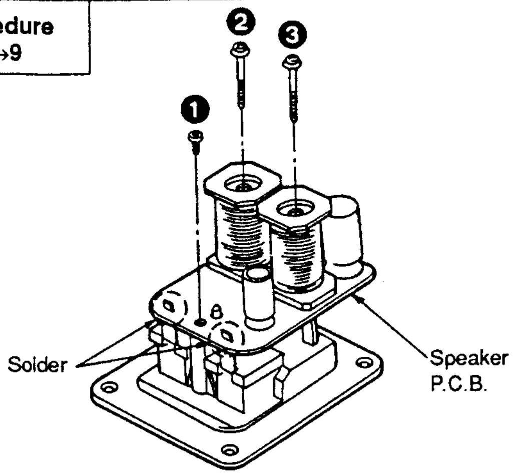
Removal of the Terminal Block

Procedure 8


❶
❷
❸
❹
Terminal block

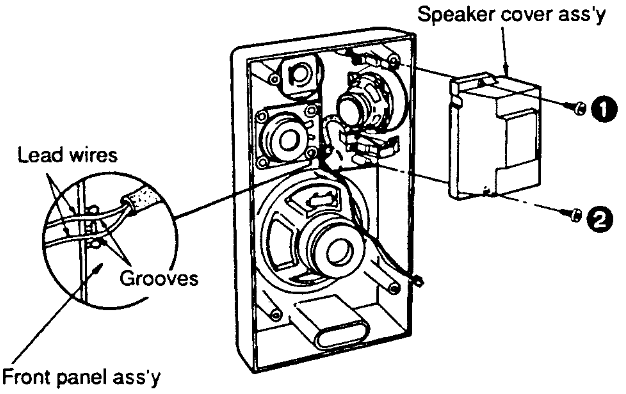
- Remove the 4 screws (❶~❹).

Ref. No. 9	Removal of the Speaker P.C.B.
Procedure 8→9	


❷
❸
❶
Solder
Speaker P.C.B.

1. Remove the 3 screws (❶~❸).
2. Unsolder at the 2 locations shown.

■ Note for the Attachment of the Speaker Cover Ass'y


Speaker cover ass'y
❶
❷
Lead wires
Grooves
Front panel ass'y

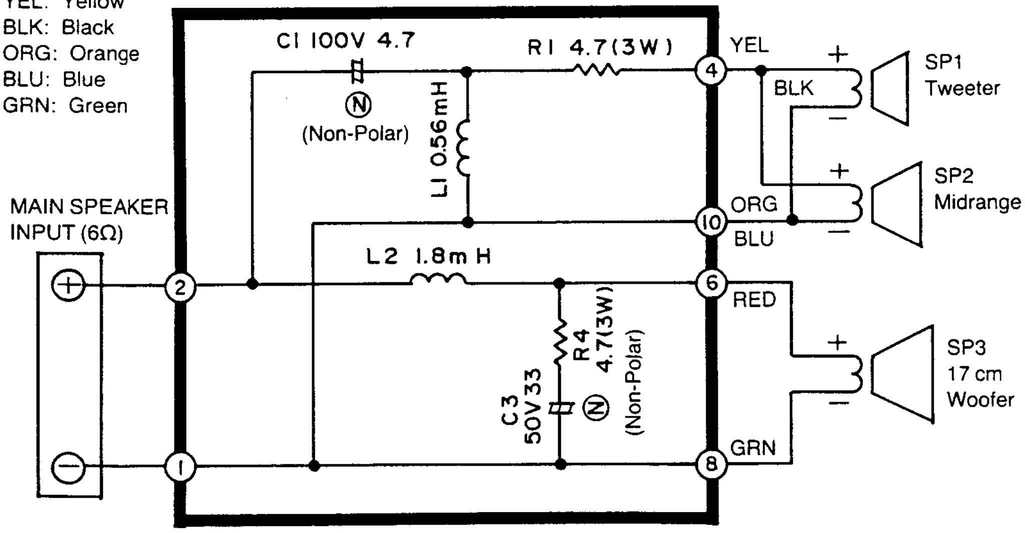
1. Put the 2 lead wires connected to the speaker terminal into the 2 grooves on the front panel ass'y and attach the speaker cover ass'y.
2. Fix the speaker cover ass'y with the 2 screws (❶, ❷).

■ SCHEMATIC DIAGRAM

•This schematic diagram may be modified at any time with the development of new technology.

Note:
YEL: Yellow
BLK: Black
ORG: Orange
BLU: Blue
GRN: Green

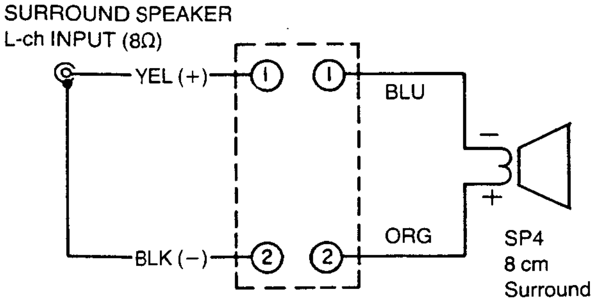
■ SPEAKER CIRCUIT (L/R commoness)


C1 100V 4.7
Ⓝ
(Non-Polar)
R1 4.7(3W)
L1 0.56mH
MAIN SPEAKER INPUT (6Ω)
⊕
⊖
2
1
4
10
6
8
L2 1.8mH
C3 50V 33
Ⓝ
R4 4.7(3W)
(Non-Polar)
YEL
BLK
ORG
BLU
RED
GRN
+
−
SP1 Tweeter
SP2 Midrange
SP3 17 cm Woofer

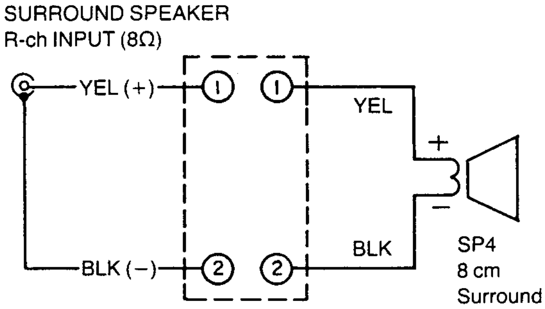
■ WIRING CONNECTION DIAGRAM <Surround section>

(The connection of the L channel and the R channel are different.)

Connector connection <L ch>
(Opposite connection)


SURROUND SPEAKER L-ch INPUT (8Ω)
YEL (+)
BLK (−)
1
2
BLU
ORG
−
+
SP4 8 cm Surround

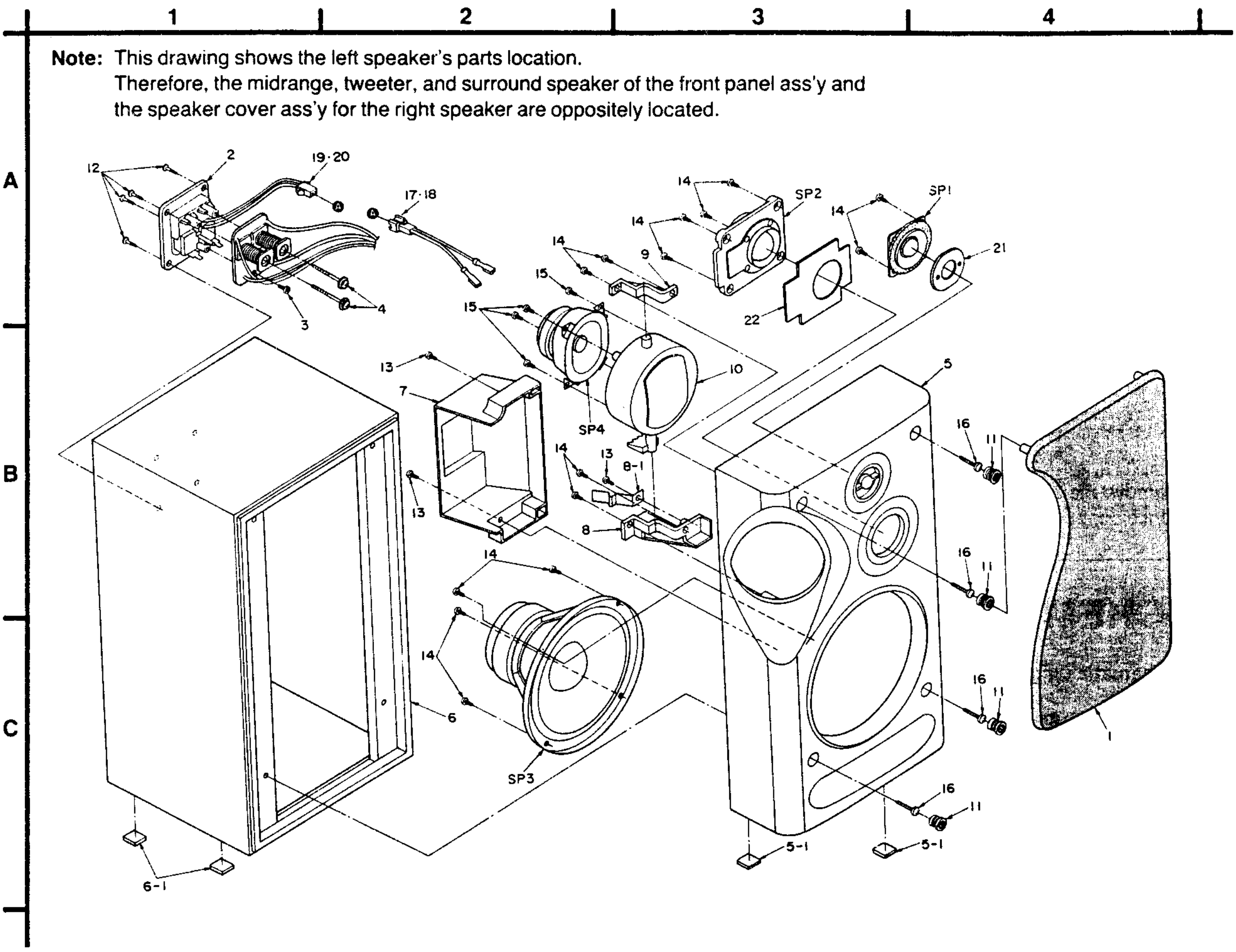
Connector connection <R ch>
(Regular connection)


SURROUND SPEAKER R-ch INPUT (8Ω)
YEL (+)
BLK (−)
1
2
YEL
BLK
+
−
SP4 8 cm Surround

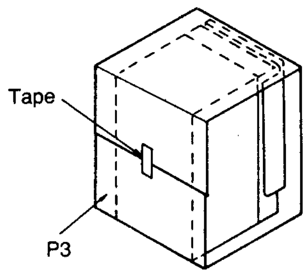
an
H/TN

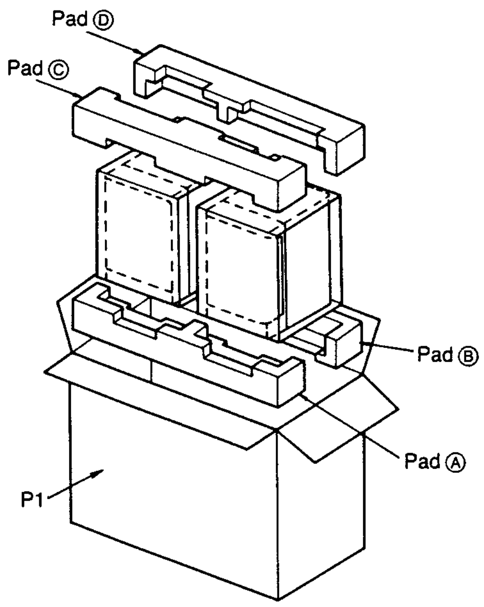
■ CABINET PARTS LOCATION

Note: This drawing shows the left speaker's parts location.
Therefore, the midrange, tweeter, and surround speaker of the front panel ass'y and the speaker cover ass'y for the right speaker are oppositely located.


1
2
3
4
A
B
C
12
2
19·20
Ⓐ
17·18
3
4
14
SP2
SP1
21
22
9
15
10
13
7
SP4
5
16
11
8-1
8
6
SP3
1
6-1
5-1

■ PACKAGING




Pad Ⓓ
Pad Ⓒ
Pad Ⓑ
Pad Ⓐ
P1

P2: Pad ⒶⒷⒸⒹ Ass'y

■ REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
		COIL(S)	
L1	RLCV561J1-E	COIL 0.56mH	
L2	RLCV182J1-E	COIL 1.8mH	
		SPEAKER(S)	
SP1	EAS5FP13B	SPEAKER(TWEETER)	
SP2	EAS25KH45A	SPEAKER(MIDRANGE)	
SP3	EAS17PL06E	SPEAKER(WOOFER)	
SP4	EAS7D10G	SPEAKER(SURROUND)	
		RESISTOR(S)	
R1.4	ERX3SJ4R7P	RESISTOR 3W 4.7	
		CAPACITOR(S)	
C1	QCEA100Y4R7C	CAPACITOR 100V 4.7uF	
C3	ECEA50Y33K	CAPACITOR 50V 33uF	
		CABINET PARTS	
1	RYB0060	SPEAKER NET(L)	
1	RYB0060A	SPEAKER NET(R)	
2	RJH8301N	TERMINAL BLOCK	
3	XTB3+8J	SCREW	
4	XTW3+45P	SCREW	
5	RFKGBCH950GA	FRONT PANEL ASS'Y(L)	
5	RFKGBCH950GB	FRONT PANEL ASS'Y(R)	
5-1	SHG1654	CUSHION	
6	RFKKBCH750GA	CABINET ASS'Y(L)	
6	RFKKBCH750GB	CABINET ASS'Y(R)	
6-1	SHG1654	CUSHION	
7	RFKNBCH750NA	SPEAKER COVER ASS'Y(L)	
7	RFKNBCH750NB	SPEAKER COVER ASS'Y(R)	
8	RFKNBCH750NC	SURROUND SP.HOLDER ASS'Y(L)	
8	RFKNBCH750ND	SURROUND SP.HOLDER ASS'Y(R)	
8-1	RMC0209	SPRING PLATE	
9	RMR0664-K	SURROUND SP HOLDER(UPPER)	
10	RYQ0100-K	SURROUND SPEAKER ORNAMENT	
11	SHGS9044	NET MOUNTING RUBBER	
12	XMM31+D16FZ	SCREW	
13	XTB3+8J	SCREW	
14	XTB4+10G	SCREW	
15	XTB4+8G	SCREW	
16	XTNSS43+20F	SCREW	
17	SJS50268SM	PLUG(2P)	
18	SJT792	TERMINAL	
19	SJS50269SM	SOCKET(2P)	
20	SJT779	TERMINAL	
21	RMQ0362	SPEAKER GASKET(TWEETER)	
22	RMQ0365	SPEAKER GASKET(MIDRANGE)	
		PACKING MATERIALS	
P1	RPG1431	PACKING CASE	
P2	RPN0656	PAD	
P3	RPH0096	PROTECTION SHEET	

Printed in Japan
F921204000FF/HH/TN